SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS

OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30

1. REQUISITION NO.	PAGE 1 OF
	15

2. CONTRACT NO	3. AWARD/EFFECTIVE DATE	4. ORDER NO.	5. SOLICITATION NO.	6. SOLICITATION ISSUE DATE
GS-35F-0627P		NNH05CC35D	NNH04072180Q	September 28, 2004

7. FOR SOLICITATION INFORMATION CALL	a. NAME	b. TELEPHONE NO. (No collect calls)	8. OFFER DUE DATE/LOCAL TIME
	Delia B. Robey	301-286-8109	October 14, 2004

9. ISSUED BY — CODE 210.H

NASA/Goddard Space Flight Center
Headquarters Procurement Office
Code 210.H, Bldg. 17, Room S124
Greenbelt Road
Greenbelt, MD 20771

10. THIS ACQUISITION IS
- ☐ UNRESTRICTED
- ☐ SET ASIDE: % FOR
  - ☐ SMALL BUSINESS
  - ☐ SMALL DISADV. BUSINESS
  - ☐ 8(A)

SIC: 514191
SIZE STD: Emp.1000

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- ☐ SEE SCHEDULE

12. DISCOUNT TERMS

- ☒ 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING: DOC9

14. METHOD OF SOLICITATION
- ☒ RFQ ☐ IFB ☐ RFP

15. DELIVER TO — CODE

See Attached

16. ADMINISTERED BY — CODE 210.H

NASA/Goddard Space Flight Center
Headquarters Procurement Office/Delia B. Robey
Bldg. 17, Room S120

17a. CONTRACTOR/ OFFEROR — CODE — FACILITY CODE

eTouch Systems Corp.
3340 Walnut Ave., Suite 120
Fremont, CA 94538-2215

Telephone No. 510-795-4800

18a. PAYMENT WILL BE MADE BY — CODE 155

Costs and Commercial Accounts Department
Code 155
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

- ☐ 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER
- 18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED ☐ SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	The Contractor shall provide Web Portal Services in support of the Office of the Chief Information Officer in accordance with the attached provisions and Statement of Work. *(Attach Additional Sheets as Necessary)*				

25. ACCOUNTING AND APPROPRIATION DATA
4200072180 $3,000,000

26. TOTAL AWARD AMOUNT *(For Govt. Use Only)*
$13,415,618

- ☐ 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4. FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA ☐ ARE ☐ ARE NOT ATTACHED.
- ☐ 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA ☐ ARE ☐ ARE NOT ATTACHED.

28. ☑ CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 3 COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. ☐ AWARD OF CONTRACT: REFERENCE eTouch OFFER DATED november 15, 2004 YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS:

30b. NAME AND TITLE OF SIGNER *(TYPE OR PRINT)*	30c. DATE SIGNED	31b. NAME OF CONTRACTING OFFICER *(TYPE OR PRINT)*	31c. DATE SIGNED
AVIRUDDHA GADRE	2/9/05	Delia B. Robey	2/9/05

32a. QUANTITY IN COLUMN 21 HAS BEEN	33. SHIP NUMBER	34. VOUCHER NUMBER	35. AMOUNT VERIFIED CORRECT FOR
☐ RECEIVED ☐ INSPECTED ☐ ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED	☐ PARTIAL ☐ FINAL		
32b. SIGNATURE OF AUTHORIZED GOVT REPRESENTATIVE / 32c. DATE	36. PAYMENT ☐ COMPLETE ☐ PARTIAL ☐ FINAL		37. CHECK NUMBER
	38. S/R ACCOUNT NO.	39. S/R VOUCHER NO.	40. PAID BY
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT	42a. RECEIVED BY *(Print)*		
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER / 41c. DATE	42b. RECEIVED AT *(Location)*		
	42c. DATE REC'D *(YY/MM/DD)*	42d. TOTAL CONTAINERS	

AUTHORIZED FOR LOCAL REPRODUCTION
Computer Generated

SEE REVERSE FOR OMB CONTROL NUMBER AND PAPERWORK BURDEN STATEMENT

STANDARD FORM 1449 (10-95)
Prescribed by GSA - FAR (48 CFR) 53.212

This order is being placed under the GSA Schedule Number 70, General Purpose Commercial Information Technology equipment, Software, and Services, Contract Number GS-35F-0627P. This is a firm fixed price order.

NOTE: This document contains clauses and provisions taken from, among other sources, the Federal Acquisition Regulation (FAR) and the NASA FAR Supplement (NFS). Whenever the word "contract" appears in FAR and NFS clauses and provisions presented herein, substitute the word "delivery order" respectively. In addition, throughout this entire document, term "Contracting Officer" refers to the Goddard Space Flight Center Contracting Officer, Code 210.H, except where specifically defined otherwise.

The Contractor shall follow the Federal Government Travel Regulations. The Government travel per diem rates can be found at the following web page: http://www.policyworks.gov/

The Contractor shall submit periodic invoices for the basic work provided under the firm-fixed price in accordance with the Payment Schedule of this contract. Invoices for fixed price orders should be submitted separately.

The following shall be included on all invoices:

- GSA Contract Number
- NASA Order Number
- Cost Breakdown Per Deliverable
- Attached to Invoice a Brief Status Report on Work Performed

1. DELIVERABLE REQUIREMENTS (GSFC 52.211-90) (OCT 1988)

The Contractor shall perform and/or deliver the following : See attached Statement of Work (SOW, Attachment A)

Item No.	*Description*	*Firm-Fixed Price*	*In accordance with*
Basic Period (December 1, 2004 – May 31, 2007)			
1	Baseline Web Portal Services	$13,415,618	Attachment A & Attachment C
2	Inside NASA Phase I Option	$ 835,756	Attachment D
3	Inside NASA Phase II Option	$ 514,257	Attachment E
4	Small Applications Option	$ 654,946	Attachment F
5	Migration Services Option	$ 1,705,107	Attachment G
6	Taxonomy Work Option	$ 525,733	Attachment H
7	Google Appliance Option	$ 534,897	Attachment I
Option I (June 1, 2007 – May 31, 2008)			

8	Baseline Web Portal Services	$5,358,891	Attachment A & Attachment C
9	Inside NASA Phase I Option	$ 249,967	Attachment D
10	Inside NASA Phase II Option	$ 214,290	Attachment E
11	Small Applications Option	$ 262,833	Attachment F
12	Taxonomy Work Option	$ 67,846	Attachment H
Option II (June 1, 2008 – May 31, 2009)			
13	Baseline Web Portal Services	$ 5,543,527	Attachment A & Attachment C
14	Inside NASA Phase I Option	$ 263,314	Attachment D
15	Inside NASA Phase II Option	$ 231,231	Attachment E
16	Small Applications Option	$ 277,974	Attachment F
17	Taxonomy Work Option	$ 69,880	Attachment H
18	Google Appliance Option	$ 252,785	Attachment I
General			
19	IDIQ Orders (**All periods**)	To Be Priced in each task order	In accordance with task orders issued
20	IT Security Plan	Not priced Separately	60 days following award

(End of clause)

2. SCOPE OF WORK (GSFC 52.211-91) (FEB 1991)

The Contractor shall provide all resources (except as may be expressly stated in this task order as furnished by the Government) necessary to perform the baseline work as specified in the Statement of Work, Attachment A;Contractor's proposal sections 2.1.3, 2.1.4, 2.2, and 4.5, Attachment C, and any IDIQ task orders issued.

(End of clause)

3. FIRM FIXED PRICE (1852.216-78) (DEC 1988)

The total firm fixed price of the baseline portion of this contract is
$ 13,415,618 .

Baseline requirements for this contract are defined as the non-IDIQ portion of the effort.

NOTE: The firm-fixed price for this contract is defined as the sum of the baseline firm fixed price and the aggregate fixed price of all task orders issued during the period, which shall not be less than the IDIQ minimum during that period.

(End of clause)

4. OPTION TO EXTEND CONTRACT

(a) The Government may extend the term of this contract by written notice to the Contractor within **the period of performance**; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least **30** days before the contract expires. The preliminary notice does not commit the Government to an extension.
(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed **54 months**.

The option periods and prices or costs and any fees are as follows:

Option	Period	Baseline Amount	IDIQ Minimum Value
Option I	June 1, 2007 through May 31, 2008	$5,358,891	$1,000
Option II	June 1, 2008 through May 31, 2009	$5,543,527	$1,000

(End of text)

5.OPTION FOR ADDITIONAL SERVICES

The Government may require the delivery of the numbered line item identified in the Schedule as an option item (Item # 2-7, 9-12, 14-18). The Contracting Officer may exercise the options by written notice to the Contractor within the period of performance, provided that the Government provides written notice of its intent to exercise each option at least **10** days in advance and before the following basic period dates:

Option Item	Execution Date	Item #
Inside NASA Phase I Option	Effective date of award	2,9,14
Inside NASA Phase II Option	May 1, 2005	3,10,15
Google Appliance Option	May 1, 2005	7,18
Small Appliance Option	May 1, 2005	4,11,16
Migration Services Option	May 1, 2005	5
Taxonomy Option	May 1, 2005	6,12,17

(End of text)

6. MINIMUM/MAXIMUM AMOUNT OF SUPPLIES OR SERVICES
This clause is only applicable to the IDIQ requirements issued as task orders under this contract.

The minimum amount of supplies or services that shall be ordered during the effective period of this contract is **$1,000**. The maximum amount of supplies or services that may be ordered during the effective period of this contract is **$10,000,000*.**.

*** The maximum value is for the entire potential 4-½ year effort.**

(End of text)

7. ORDERING (52.216-18)(Oct 1995)

Note: This clause is applicable to the IDIQ portion of this contract.

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued during the effective ordering period specified in the schedule.
(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.
(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce method only if authorized in the Schedule.

(End of clause)

8. ORDER LIMITATIONS (52.216.-19) (Oct 1995)
(a) *Minimum order.* When the Government requires supplies or services covered by this contract in an amount of less than $1,000, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.
(b) *Maximum order* . The Contractor is not obligated to honor-
(1) Any order for a single item in excess of $5,000,000
(2) Any order for a combination of items in excess of $5,000,000; or
(3) A series of orders from the same ordering office within 30 days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.
(c) If this is a requirements contract (*i.e* ., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.
(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 5 days after issuance, with written

notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

9. INDEFINITE QUANTITY (52.216-22) (Oct 1995)

Note: This clause is applicable to the IDIQ portion of this contract.

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.
(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."
(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.
(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; *provided*, that the Contractor shall not be required to make any deliveries under this contract after the effective ordering period specified in the schedule.

(End of clause)

10. ADVANCE AGREEMENT

The Contractor shall be entitled to reimbursement of charges incurred on or after December 1, 2004 in an amount not to exceed $1,500,000 that, if incurred after the contract had been entered into, would have been reimbursable under this contract.

(End of text)

11. INVOICES - SUBMISSION OF (GSFC 52.232-95) (AUG 2000)

Invoices shall be prepared in accordance with the Prompt Payment terms of this contract and submitted to the Cost and Commercial Accounts Department, Code 155, NASA/Goddard Space Flight Center, Greenbelt, MD 20771. For purposes of the Prompt Payment Act, the above office is considered to be the "Designated Billing Office" and the "Designated Payment Office".

(End of clause)

12. PAYMENT SCHEDULE

Payments shall be made in accordance with the following schedule:

Payment No.	Description	Amount
1	February 2005	$ 1,694,678
2	March 2005	$ 404,080
3	April 2005	$ 404,080
4	May 2005	$ 404,080
5	June 2005	$ 404,080
6	July 2005	$ 404,080
7	August 2005	$ 404,080
8	September 2005	$ 404,080
9	October 2005	$ 404,080
10	November 2005	$ 404,080
11	December 2005	$ 434,133
12	January 2006	$ 434,128
13	February 2006	$ 434,128
14	March 2006	$ 434,128
15	April 2006	$ 434,128
16	May 2006	$ 434,128
17	June 2006	$ 434,128
18	July 2006	$ 434,128
19	August 2006	$ 434,128
20	[illegible] 2006	$ 434,128
21	October 2006	$ 434,128
22	November 2006	$ 434,128
23	December 2006	$ 479,114
24	January 2007	$ 479,113
25	February 2007	$ 479,113
26	March 2007	$ 479,113
27	April 2007	$ 479,113
28	May 2007	$ 479,113
TOTAL FIRM FIXED PRICE		$13,415,618

(End of text)

13. PLACE OF PERFORMANCE--SERVICES (GSFC 52.237-92) (OCT 1988)

The services specified by this contract shall be performed at the contractor's facility and at any location(s) deemed necessary by the Government.

(End of clause)

14. PERIOD OF PERFORMANCE/EFFECTIVE ORDERING PERIOD

The period of performance of this order shall be from the effective date of the contract through May 31, 2007.

(End of text)

15. ACCEPTANCE--SINGLE LOCATION (GSFC 52.246-92) (SEPT 1989)

The Contracting Officer or authorized representative will accomplish acceptance of deliverables at NASA Headquarters, Washington, DC. For the purpose of this clause, the Contracting Officer Technical Representative named in this contract is the authorized representative. The Contracting Officer reserves the right to unilaterally designate a different Government agent as the authorized representative. The Contractor will be notified by a written notice or by a copy of the delegation of authority if different representative is designated.

(End of clause)

16. HANDLING OF DATA (GSFC 52.203-90) (JAN 1995)

(a) In the performance of this contract, it is anticipated that the Contractor may have access to, be furnished, or use the following categories of data (which may be technical data, computer software, administrative, management information, or financial, including cost or pricing):

(1) Data of third parties which the Government has agreed to handle under protective arrangements; and

(2) Government data, the use and dissemination of which, the Government intends to control.

(b) In order to protect the interests of the Government and the owners, licensors and licensees of such data, the Contractor agrees, with respect to any such third party or Government data that is either marked with a restrictive legend, specifically identified in this contract, or otherwise identified in writing by the Contracting Officer as being subject to this clause, to:

(1) Use, disclose, and reproduce such data only to the extent necessary to perform the work required under this contract;

(2) Allow access to such data only to those of its employees that require access for their performance under this contract;

(3) Preclude access and disclosure of such data outside the Contractor's organization; and

(4) Return or dispose of such data, as the Contracting Officer may direct, when the data is no longer needed for contract performance.

(c) The Contractor agrees to inform and instruct its employees of its and their obligations under this clause and to appropriately bind its employees contractually to comply with the access, use, disclosure, and reproduction provisions of this clause.

(d) In the event that data includes a legend that the Contractor deems to be ambiguous or unauthorized, the Contractor may inform the Contracting Officer of such condition. Notwithstanding such a legend, as long as such legend provides an indication that a restriction on use or disclosure was intended, the Contractor shall treat such data pursuant to the requirements of this clause unless otherwise directed, in writing, by the Contracting Officer.

(e) Notwithstanding the above, the Contractor shall not be restricted in use, disclosure, and reproduction of any data that:

(1) Is, or becomes, generally available or public knowledge without breach of this clause by the Contractor;

(2) Is known to, in the possession of, or is developed by the Contractor independently of any disclosure of, or without reference to, proprietary, restricted, confidential, or otherwise protectible data under this clause;

(3) Is rightfully received by the Contractor from a third party without restriction;

(4) Or is required to be produced by the Contractor pursuant to a court order or other Government action.

If the Contractor believes that any of these events or conditions that remove restrictions on the use, disclosure, and reproduction of the data apply, the Contractor shall promptly notify the Contracting Officer of such belief prior to acting on such belief, and, in any event, shall give notice to the Contracting Officer prior to any unrestricted use, disclosure, or reproduction of such data.

(End of clause)

17. LIMITED RELEASE OF CONTRACTOR CONFIDENTIAL BUSINESS INFORMATION (GSFC 52.203-91) (JUN 2002)

(a) NASA may find it necessary to release information submitted by the Contractor, either in response to this solicitation or pursuant to the provisions of this contract, to individuals not employed by NASA. Business information that would ordinarily be entitled to confidential treatment may be included in the information released to these individuals. Accordingly, by submission of this proposal, or signature on this contract or

other contracts, the Contractor hereby consents to a limited release of its confidential business information (CBI).

(b) Possible circumstances where the Agency may release the Contractor's CBI include, but are not limited to, the following:

(1) To other Agency contractors and subcontractors, and their employees tasked with assisting the Agency in handling and processing information and documents in the evaluation, the award or the administration of Agency contracts, such as providing both preaward and post award audit support and specialized technical support to NASA's technical evaluation panels;

(2) To NASA contractors and subcontractors, and their employees engaged in information systems analysis, development, operation, and maintenance, including performing data processing and management functions for the Agency.

(c) Except where otherwise provided by law, NASA will permit the limited release of CBI under subparagraphs (1) or (2) only pursuant to non-disclosure agreements signed by the assisting contractor or subcontractor, and their individual employees who may require access to the CBI to perform the assisting contract).

(d) NASA's responsibilities under the Freedom of Information Act are not affected by this clause.

(e) The Contractor agrees to include this clause, including this paragraph (e), in all subcontracts at all levels awarded pursuant to this contract that require the furnishing of confidential business information by the subcontractor.

(End of clause)

18. TASK ORDERING PROCEDURE (1852.216-80) (OCTOBER 1996)

(a) **For the IDIQ requirements under this contract,** only the Contracting Officer may issue task orders to the Contractor, providing specific authorization or direction to perform work within the scope of the contract and as specified in the schedule. The Contractor may incur costs under this contract in performance of task orders and task order modifications issued in accordance with this clause. No other costs are authorized unless otherwise specified in the contract or expressly authorized by the Contracting Officer.

(b) Prior to issuing a task order, the Contracting Officer shall provide the Contractor with the following data:

(1) A functional description of the work identifying the objectives or results desired from the contemplated task order.

(2) Proposed performance standards to be used as criteria for determining whether the work requirements have been met.

(3) A request for a task plan from the Contractor to include the technical approach, period of performance, appropriate cost information, and any other

information required to determine the reasonableness of the Contractor's proposal.

(c) Within **5** calendar days after receipt of the Contracting Officer's request, the Contractor shall submit a task plan conforming to the request.

(d) After review and any necessary discussions, the Contracting Officer may issue a task order to the Contractor containing, as a minimum, the following:

(1) Date of the order.

(2) Contract number and order number.

(3) Functional description of the work identifying the objectives or results desired from the task order, including special instructions or other information necessary for performance of the task.

(4) Performance standards, and where appropriate, quality assurance standards.

(5) Maximum dollar amount authorized (cost and fee or price). This includes allocation of award fee among award fee periods, if applicable.

(6) Any other resources (travel, materials, equipment, facilities, etc.) authorized.

(7) Delivery/performance schedule including start and end dates.

(8) If contract funding is by individual task order, accounting and appropriation data.

(e) The Contractor shall provide acknowledgment of receipt to the Contracting Officer within **1** calendar days after receipt of the task order.

(f) If time constraints do not permit issuance of a fully defined task order in accordance with the procedures described in paragraphs (a) through (d), a task order which includes a ceiling price may be issued.

(g) The Contracting Officer may amend tasks in the same manner in which they were issued.

(h) In the event of a conflict between the requirements of the task order and the Contractor's approved task plan, the task order shall prevail.

(End of clause)

19. SUPPLEMENTAL TASK ORDERING PROCEDURES

(a) For the IDIQ requirements under this contract, when the Government issues a request for a "task plan" to the Contractor in accordance with the Clause entitled "Task Ordering Procedure" of this contract, the Contractor shall prepare its estimate of the labor hours, labor categories, indirect costs, and other direct costs required to perform the task order requirements. The Contractor shall use the labor categories, labor rates, and other applicable rates listed in Clause J.1, **Attachments J through Q** to calculate the proposed fixed price to perform the task order requirements.

(b) The Contractor agrees that only those appropriate rates found in the applicable **Attachment J through Q** shall be used to calculate the proposed price for all task orders issued in accordance with the "Task Ordering Procedure" clause of this contract.

(End of text)

20. EXPORT LICENSES (18.52.225-70)(FEB 2000)

(a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.

(b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at **NASA HEADQUARTERS**, where the foreign person will have access to export-controlled technical data or software.

(c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(End of clause)

21. LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (1852.232-77) (MAR 1989)

Baseline Requirement:

(a) Of the total price of items through **Deliverable Item #1** , the sum of **$3,000,000** is presently available for payment and allotted to this contract. It is anticipated that from time to time additional funds will be allocated to the contract in accordance with the following schedule, until the total price of said items is allotted:

SCHEDULE FOR ALLOTMENT OF FUNDS

Date	Amounts
Date of Contract Award	$3,000,000
June 1, 2005	$2,331,398
December 1, 2005	$2,604,771
June 1, 2006	$2,604,770
December 1, 2006	$2,874,679

(b) The Contractor agrees to perform or have performed work on the items specified in paragraph (a) of this clause up to the point at which, if this contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause would, in the exercise of reasonable judgment by the Contractor, approximate the total amount at the time allotted to the contract. The Contractor is not obligated to continue performance of the work beyond that point. The Government is not obligated in any event to pay or reimburse the Contractor more than the amount from time to time allotted to the contract, anything to the contrary

in the Termination for Convenience of the Government clause notwithstanding.

(c) (1) It is contemplated that funds presently allotted to this contract will cover the work to be performed until **June 15, 2005.**

(2) If funds allotted are considered by the Contractor to be inadequate to cover the work to be performed until that date, or an agreed date substituted for it, the Contractor shall notify the Contracting Officer in writing when within the next 60 days the work will reach a point at which, if the contract is terminated pursuant to the Termination for Convenience of the Government clause of this contract, the total amount payable by the Government (including amounts payable for subcontracts and settlement costs) pursuant to paragraphs (f) and (g) of that clause will approximate 75 percent of the total amount then allotted to the contract.

(3) (i) The notice shall state the estimate when the point referred to in paragraph (c)(2) of this clause will be reached and the estimated amount of additional funds required to continue performance to the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it.

(ii) The Contractor shall, 60 days in advance of the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, advise the Contracting Officer in writing as to the estimated amount of additional funds required for the timely performance of the contract for a further period as may be specified in the contract or otherwise agreed to by the parties.

(4) If, after the notification referred to in paragraph (c)(3)(ii) of this clause, additional funds are not allotted by the date specified in paragraph (c)(1) of this clause, or an agreed date substituted for it, the Contracting Officer shall, upon the Contractor's written request, terminate this contract on that date or on the date set forth in the request, whichever is later, pursuant to the Termination for Convenience of the Government clause.

(d) When additional funds are allotted from time to time for continued performance of the work under this contract, the parties shall agree on the applicable period of contract performance to be covered by these funds. The provisions of paragraphs (b) and (c) of this clause shall apply to these additional allotted funds and the substituted date pertaining to them, and the contract shall be modified accordingly.

(e) If, solely by reason of the Government's failure to allot additional funds in amounts sufficient for the timely performance of this contract, the Contractor incurs additional costs or is delayed in the performance of the work under this contract, and if additional funds are allotted, an equitable adjustment shall be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the items to be delivered, or in the time of delivery, or both.

(f) The Government may at any time before termination, and, with the consent of the Contractor, after notice of termination, allot additional funds for this contract.

(g) The provisions of this clause with respect to termination shall in no way be deemed to limit the rights of the Government under the default clause of this contract. The provisions of this Limitation of Funds clause are limited to the work on and allotment of funds for the items set forth in paragraph (a) of this clause. This

clause shall become inoperative upon the allotment of funds for the total price of said work except for rights and obligations then existing under this clause.

(h) Nothing in this clause shall affect the right of the Government to terminate this contract pursuant to the Termination for Convenience of the Government clause of this contract.

IDIQ:

(a) Funding for each task order will be done separately under each task order.

(End of clause)

22. IN ADDITION TO THE GSA CONTRACT SCHEDULE CLAUSES, THIS DELIVERY ORDER IS SUBJECT TO THE FOLLOWING CLAUSES:

NASA FAR SUPPLEMENT CLAUSES:

1852.204-76 SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (NOV 2004)(paragraph (c) "60 days")

1852.215-84 OMBUDSMAN (OCT 2003)--Alternative I (JUN 2000). The installation Ombudsman is Olga M. Dominguez, Office of Infrastructure, Management and HQ Operations, Mail Suite 6T70, phone 202-358-2800, fax number: 202-358-3068, email address olga.m.dominguez@nasa.gov.

1852.219-76 NASA 8 PERCENT GOAL (JUL 1997)

1852.223-72 SAFETY AND HEALTH (SHORT FORM) (APR 2002)

18.52.223-75 MAJOR BREACH OF SAFETY AND SECURITY (FEB 2002)

(End of by Reference Section)

23. LIST OF ATTACHMENTS (GSFC 52.211-101) (OCT 1988)

The following attachments constitute part of this contract:

Attachment	Description	Date	No. of Pages
A	Statement of Work	2/7/05	20
B	IT Security Plan	To Be Submitted	TBS
C	Contractor's Proposal (Sections 2.1.3, 2.1.4, 2.2, 4.5)	11/15/04	19
D	Inside NASA Phase I Option	1/24/05	1
E	Inside NASA Phase II Option	1/24/05	1
F	Small Applications Option	1/24/05	1
G	Migration Services Option	1/24/05	1
H	Taxonomy Option	1/24/05	2
I	Google Appliance Option	1/24/05	1
J	Bandwidth Pricing	1/24/05	2
K	Support for NASA Portal and Portal Sites	1/24/05	1

L	Infrastructure Expansion & Software License Additions	1/24/05	3
M	Usability Study	1/24/05	1
N	Content Migration Project Units	1/24/05	4
O	Expanded Internal NASA Portal Use	1/24/05	1
P	Customized Portal Metrics and Reporting	1/24/05	3
Q	Syndication Expansion	1/24/05	2

***To Be Submitted within 60 days following award**

(End of clause)

Attachment A

OneNASA WEB PORTAL

STATEMENT OF WORK

The NASA (National Aeronautics and Space Administration) Web portal is the Agency's "front door" on the Internet. It provides users with easy access to the best Web content NASA has to offer, engaging users in the general public, students, teachers, scientists, researchers, business, industry and the news media. The portal is an important component of NASA's mission to " . . . inspire the next generation of explorers . . . as only NASA can."

This contract encompasses ongoing support and continued development for the portal, which was deployed Jan. 31, 2003. The contractor will continue to work within the framework of the existing design and information technology infrastructure, ensuring that the portal meets the technical requirements outlined in this document, and recommend improvements to the design, technical infrastructure and operation that will allow the portal to continue to fulfill its mission more effectively.

Generally, the contractor will provide NASA with:

- secure hosting, caching and Web streaming services;
- comprehensive content management system;
- technologically appropriate portal software installation;
- statistical data and analysis reports;
- resources to monitor and manage usage to prevent going over capacity and so that these metrics can feed a charge-back or fee-for-service model;
- professional training & documentation for the systems and processes;
- appropriate indexing and search tools to facilitate simple and advanced search capability;
- conversion and/or integration of NASA Web content in a variety of different formats (including, but not limited to XML and HTML) into the portal content management system and infrastructure;
- solutions that are in compliance with Section 508 Of the Rehabilitation Act of 1973, as amended and the Public Privacy act;
- user support, including help-desk support and escalation procedures, for NASA's use of all these services and tools which shall include providing support on-site at NASA HQ as needed.

The contractor will support the continued development and recommend improvements to:

- the graphic design and general "look and feel" of the portal
- the underlying information architecture
- the browsable directory structure
- the simple and advanced search capability
- the customizable "myNASA" feature.

- the portal's existing taxonomy and related metadata.

The Contractor shall operate and maintain the NASA Portal as well as recommend new features and performance improvements in order to provide public access to information from NASA.

1. OVERALL REQUIREMENTS

1.1 Shall provide ongoing NASA portal environment and portal application support to meet the needs of the applications and shared infrastructure on which the NASA Portal operates.

1.2 Shall provide project planning and management to achieve desired goals, strategy, and requirements to maintain the NASA portal, infrastructure, and other associated components.

1.3 Shall provide content management system administration support, user management, and workflow that are required to meet the operational functionality as noted in the requirements in this document.

1.4 Shall provide and implement a comprehensive and industry-standard approach for migration or exporting of content, metatags, presentation and authoring templates, syndication structures and workflow from the existing hardware/software architecture to at least two mutually agreeable alternative portal delivery architectures which are available from well-established vendors or available the open source realm.

1.5 Shall manage this project consistent with NASA Policy Directive 7120.5E (http://nodis.gsfc.nasa.gov/library/displayDir.cfm?Internal_ID=N_PD_7120_005B_&page_name=main

1.6 Within 90 days of the start of the contract, the vendor shall report to NASA on its plans for fulfilling each requirement in this contract.

1.7 Shall assist in the development of the strategic vision for the future evolution of this Agency-wide service

1.8 Shall support and assist the Agency Director of Web services, the Editorial Board and its subcommittees, and the Technical Advisory Board with various content and technical issues as they relate to the Portal infrastructure and its operation.

1.9 Shall maintain NASA portal search system, collection updates, category listings, that are required to meet the operational functionality as noted in the requirements.

1.10 Shall provide solutions which enable and verify compliance with federal regulations including Section 508 of the Rehabilitation Act of 1973.

1.11 Shall provide adequate documentation and training necessary for system administrators, web developers, content authors, and other IT personnel to successfully use the portal infrastructure.

2. CONTENT INTEGRATION REQUIREMENTS

2.1 Shall ensure that analysis for existing and brand new web site content up to 250,000 pages with 700,000 assets to be brought into the base portal infrastructure will be included in the base cost. For the purposes of this requirement, a "web site" consists of all Web pages and associated files under a "top-level" NASA domain, i.e., xxxx.nasa.gov or xxx.center.nasa.gov. Additional pages of content will be brought into the infrastructure on a indefinite delivery indefinite quantity (IDIQ) basis.

2.2 Shall ensure that NASA syndication channels identified by the COTR and/or the Editorial Board are incorporated into the Portal.

2.3 Shall coordinate and develop custom automated content integration pathways for content that may not be syndicated. This task will include the automated meta-tagging of content.

2.4 Shall conduct requirements gathering and investigation phase analysis sufficient to determine with 90-95% confidence the technical effort involved with migration or integration of any NASA site into the NASA Portal, or major expansion of existing site presently in the NASA portal.

2.5 Shall plan an integration strategy for key public web applications (i.e., NIX), which integrates their functionality into the Portal infrastructure using a standards-based approach.

2.6 Shall provide strategy for application platform services for small, and or short-term public applications hosted via the Portal infrastructure.

2.7 Shall provide and implement strategy for incorporation of database-driven or other application-based NASA Web site into the portal.

2.8 Shall provide integration of ten (10) multimedia content projects developed by NASA into the portal infrastructure

2.9 Shall complete eight (8) automated content integration projects per year which incorporate existing XML content into the Portal.

2.10 Shall incorporate NASA syndication channels into the Portal.

2.11 Shall facilitate the deployment of interactive web application (or web service) developed for the Portal on the Portal infrastructure.

2.12 Shall develop ten (10) new authoring and presentation templates, as well as new publication workflows, where needed, to incorporate content into the portal.

3. CONTENT CREATION REQUIREMENTS

3.1 Shall provide and integrate authoring environment to support end-to-end lifecycle management, including content creation, update, modification, deletion, and archive.

3.2 Shall support multiple user authoring

3.3 Shall separate content from the presentation in such a way as to provide the capability to re-purpose any portal content in a variety of different formats, including, but not limited to, email, pdf, wap/wml, text, and soap/wsdl.

3.4 Shall allow for single sourcing for repurposing of content in multiple uses

3.5 May allow for detail metadata capture and management mechanisms for supporting long-term accessibility and search of information

3.6 Shall develop and deploy a sustainable taxonomy and underlying information architecture across NASA's repositories

3.7 Shall document and train NASA personnel in the processes required to maintain and evolve the taxonomy and underlying information architecture

3.8 Shall be able to create multiple cross-links among objects

3.9 Shall allow users to publish without knowledge of HTML or specialized language

3.10 Shall support content in a variety of formats, including (but not limited to) XML, HTML, Microsoft Office, PDF, ODBC databases, comma-delimited formats, image files, multimedia files, and wireless access protocol devices (WAP)

3.11 Shall support the use of multiple languages as identified by the COTR and/or Editorial Board

3.12 Shall support the creation and display of three-dimensional renderings developed using, for example, computer-aided design (CAD) tools or VRML

3.13 Shall utilize style sheets to control final appearance of information and incorporate corporate branding keeping in mind the limitations presented by the Section 508 requirement

3.14 Shall allow specific page layout via non-technical templates

4 CONTENT MANAGEMENT REQUIREMENTS

4.1 Shall provide version control and archiving for both objects and sites

4.2 Shall include a customizable, rich workflow capability that allows easy update of content management processes by multiple roles, including creation, deletion, updating roles or steps, and modifying rules within the workflows

4.3 Shall provide integration with database-driven Web interfaces, such as the NASA Image Exchange (http://nix.nasa.gov) subject to the capabilities of existing portal software.

4.4 Shall provide listing of off-the-shelf integration capabilities with web application servers, transactional applications, back-office systems, legacy data sources, and third-party applications

4.5 Shall provide an audit trail of updates to content

4.6 Shall demonstrate and note adherence to open standards where appropriate

4.7 Shall provide documentation of the content management system software and its associated interfaces and sub-systems

4.8 Shall provide customizable reports for both users and administrators

4.9 Shall provide syndication of web-based content to and from industry affiliates, customers, distributors, and other partners

4.10 Shall include group, role, and/or user-based management and display of data and a simple way for NASA personnel to assign people to new groups and roles

4.11 Shall support the use of electronic signatures and interoperate with existing or new NASA authorization mechanisms as well as SmartCard access, Cyber Identity Management System, etc.

4.12 Shall provide capability for expiration and archival and retrieval of content.

4.13 Shall provide the ability to retrieve and update dynamic data on demand to ensure the user's content is current (automatic indexing)

4.14 Shall provide an easy to use interface for users of the content management system to suggest improvements. Shall periodically discuss those suggestions with the portal editor and develop plans for implementing those improvements.

4.15 Shall document release of new versions of the content management system with clearly written, easily understood additions to the existing document required in paragraph 4.7 above.

4.16 Shall continue to support WebDAV authoring interface with existing and new features as the WebDAV standard evolves, which will allow new users to input a limited amount of text and multimedia material to the content management system, which the system will automatically place in an established template and send into the workflow.

4.17 Upon request from the portal editor or a section editor, shall provide help desk support at other times for high-interest news events, such as launches.

4.18 Shall provide, wherever possible and requested by NASA, automation of elements of the workflow to reduce the need for content creators and editors to initiate multiple steps of the workflow.

4.19 Shall provide training which will include monthly classroom training sessions, conducted by professional trainers, on content management tools, at two levels: users who are uploading content only, and users who are editing and publishing content using the system. These sessions will be held at each of the NASA field centers and will include training in use of the Content Management System, application of metadata, quality assurance methods and other topics designate by NASA. Shall also include training manuals written in clear, understandable language that detail all functionality of the content management tool. Additional, monthly training will be provided using Webex or other conferencing tools.

5 ONGOING DESIGN SUPPORT REQUIREMENTS

5.1 Shall provide ongoing design support for new elements as they are created or incorporated into the portal consistent with the existing overarching design of the NASA site. Design elements shall meet the following criteria :

5.1.1 Shall focus on NASA's unique mission and capabilities and draw upon the resources, including text, imagery, and multimedia available from within the Agency in unique and technologically ground-breaking ways to achieve these ends.

5.1.2 Shall take best advantage of NASA's digital assets and extend its "high tech" image through the approach by using leading-edge products, tools and services along with certified industry standards.

5.1.3 Shall ensure consistent branding throughout the portal, though different sub-levels of the portal may carry somewhat varied designs when appropriate for meeting the needs of the audience.

6. BANDWIDTH, HOSTING AND INFRASTRUCTURE REQUIREMENTS

6.1 Shall provide a hosting solution to ensure the capacity for extremely large volume viewing of the portal during peak events and the routine high-level traffic expected normally. During launch events, NASA regularly provides 10,000-25,000 video simultaneous streams with the possibility of going as high as 50,000 video streams per event for PC and Macintosh users.

6.2 Shall provide and manage baseline bandwidth that is no less than 300 mbps for traffic over the portal and its content repository (or hosting solution). Additionally, the contractor shall provide base bandwidth upto 500 Mbps and bandwidth for special events at the following levels – 1Gbps, 1.5 Gbps, 3.0 Gbps, 9.0 Gbps and 12.0 Gbps.

6.3 Shall manage the total bandwidth usage to levels specified by NASA and provide mechanism for NASA to acquire additional bandwidth at NASA's option.

6.4 Shall provide 99.995 percent availability of the of NASA public web content. 100% Availability is defined as 24 hours a day for every day of the year. Shall propose a Service Level Agreement for internal NASA content as well as for internal NASA applications that insure that Applications, such as the Content Management System (CMS) are consistently available to NASA users. This proposal shall be submitted for NASA review and approval within 90 days of contract award.

6.5 Shall provide a hosting infrastructure that includes a multi-carrier data center to ensure redundancy of access to the hosting infrastructure.

6.6 Shall provide NASA with monthly analysis of bandwidth used for content delivery, live streaming and on-demand streaming by URL.

6.7 Shall provide escalation procedures for remedying problems in the hosting environment and network infrastructure.

7. FUNCTIONAL REQUIREMENTS

7.1 Shall provide the ability to update the workflows and processes across the system components

7.2 Shall coordinate the deployment of new interface designs considering usability test results from members of NASA's identified audiences

7.3 Shall provide the business case for the incorporation of the specific functionality (as delivered and/or planned) of proposed modifications

7.4 Shall detail the skills required in-house to NASA to meet any of the requirements not met by the contractor.

7.5 Shall provide accessibility in conformance with W3C Web Accessibility Initiative[1]

7.6 Shall support major web browsers in common use including but not limited to browsers identified in the NASA Desktop Standard 2804 as of October 15, 2004. The HTML pages developed will be W3C compliant.

7.7 Shall be operable across Windows, Macintosh (9.x and 10.x), and UNIX computers

7.8 Shall comply with all governmental mandates including the use of client-side Java, JavaScript, and cookies

7.9 Shall provide content based on roles and authentication

7.10 Shall adhere to the requirements of the directives and guidances below (any exceptions must be presented to NASA for approval)

7.10.1 NPD 2200.1 *Management of NASA Scientific and Technical Information*[2]

7.10.2 NPR 2200.2A *Guidelines for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information*[3] for providing publishing workflow

7.10.3 NPD 2190.1 *NASA Export Control Program*[4]

7.11 Shall provide ongoing support (via e-mail and telephone) during the hours of 8 a.m. to 8 p.m. Eastern Time on days when the federal government and the Jet Propulsion Laboratory would normally be open for business. Shall provide support as requested by the portal editor for high-visibility events outside these hours.

7.12 Shall provide notification of any planned system outages two business days in advance of the outage.

7.13 Shall provide a secure, authenticated, Web-based interface to input portal modification and administration direction to the vendor.

7.14 Shall provide a secure, authenticated, Web-based administrator interface for the search function for multiple NASA personnel to add or delete sites and configure query parameters.

7.15 Shall provide a secure, authenticated, web-based interface for scheduling, managing and monitoring streaming content on the portal infrastructure.

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[1] http://www.w3.org/WAI/
[2] http://nodis3.gsfc.nasa.gov/library/displayDir.cfm?Internal_ID=N_PD_2220_005E_&page_name=main
[3] http://nodis3.gsfc.nasa.gov/library/displayDir.cfm?Internal_ID=N_PG_2200_002A_&page_name=main
[4] http://nodis3.gsfc.nasa.gov/library/displayDir.cfm?Internal_ID=N_PD_2190_0001_&page_name=main

8 INDEXING REQUIREMENTS

8.1 Shall be capable of indexing documents and file types in common use, including but not limited to HTML, Microsoft Office, text, Adobe Acrobat, RTF, and databases such as Access, Oracle, DB2, and Java database connectivity (JDBC) and open database connectivity (ODBC) compliant databases from sources including but not limited to Lotus Domino servers, Windows NT file servers, SQL compliant databases, HTTP- and HTTPS-enabled Web servers, FTP-supported web site repositories, NNTP-supported news servers, and Apache, Netscape, and MS-IIS web servers

8.2 Shall provide and support sufficient metadata for objects stored within the system to allow indexing and searching based on the Dublin Core and NASA Taxonomy standard

8.3 May index domain names (including Dublin Core tags), meta tags, XML tags, and alt tags

8.4 Shall cache documents

8.5 Shall index across multiple servers

8.6 Shall index information on sites protected by SSL

8.7 Shall detect duplicate documents and delete them from the index

8.8 Shall retain stopwords in index

8.9 Shall automatically delete dead links in index

8.10 Shall schedule re-indexing in cycles of less than 10-day periods

8.11 Shall schedule sites for different frequencies of indexing

8.12 Index shall accept sites added manually in between regularly scheduled indexing runs

8.13 Shall accept searches while index is being updated without any noticeable disruption in service

8.14 Shall return new information as soon as it has been indexed

8.15 Product shall generate custom directories based on the index

8.16 Index shall be updated incrementally

8.17 Shall integrate with browsable "categories"/taxonomies as specified by NASA personnel

8.18 Shall incorporate NASA-defined taxonomies

8.19 May generate a note on results page identifying placement of content in taxonomy

8.20 Shall produce a "Best Bets" or "Sponsored" list at top of results page for quick user navigation based on prioritization of specific sites by NASA

8.21 May conduct semantic indexing of NASA content that has incorrect or no metatags by finding patterns in unstructured data or web content and use those patterns to provide more effective search and categorization services.

8.22 May index content within frames.

9 QUERY REQUIREMENTS

9.1 Shall provide simple search capability

9.1.1 Shall permit searching entire repository and all fields for any matches with at least one of the user-specified search terms

9.1.2 Shall permit wild card characters and phrase searching

9.1.3 Shall permit natural language queries

9.1.4 Shall provide online user documentation of all search features including relevant, NASA-related examples

9.2 Shall provide advanced search capability

9.2.1 Shall permit multiple simultaneous Boolean queries without using explicit Boolean operators ("Search for at least one of these words" => Boolean OR, "Search for all of these words" => Boolean AND, "Search for none of these words" => Boolean NOT, "Search for the phrase" => ordered proximity)

9.2.2 Shall permit field searching simultaneously in multiple fields including, but not limited to, all metadata fields, title, URL, and creation/modification date

9.2.3 Shall permit specifying upper and lower bounds for all numeric and date fields

9.2.4 Shall permit searching which is restricted to a specified domain

9.2.5 Shall permit specifying which fields to return in the search results

9.2.6 Shall permit specifying the number of results to return on a per page basis

9.2.7 Shall permit specifying the sort order either by rank, date, or title

9.2.8 Shall provide online user documentation of all search features including relevant, NASA-related examples

9.3 Shall provide expert search capability as part of the advanced search

9.3.1 Shall permit explicit Boolean operators

9.3.2 Shall permit parenthetical ordering, wildcard characters, case sensitivity, stemming, phrase, and proximity searches

9.3.3 May be incorporated in simple search

9.3.4 Shall provide online user documentation of all search features including relevant, NASA-related examples

9.4 Shall provide search results automatically sorted in order of relevance

9.4.1 Shall display the total number of results found

9.4.2 Shall display hyperlinked source URL, title, summary, file size, date created, and ranking, by default for all results

9.4.3 Shall rank based on frequency of search terms occurrence at minimum

9.4.4 Shall provide ranking in quantitative and graphical formats

9.4.5 Shall provide documentation on relevance ranking including practical tips on methods to improve rankings

9.4.6 Shall permit "find similar" or "related" capabilities

9.4.7 Shall return results for common misspellings

9.4.8 Shall segment large results into multiple pages

9.4.9 Shall permit multilingual searching

9.4.10 Shall provide a translation capability for converting non-HTML documents into HTML

9.4.11 May highlight search terms in retrieved documents

9.4.12 May generate document summary dynamically when not available

9.4.13 May cluster results coming from the same domain

9.4.14 May prevent the display of vendor logo on public-facing web pages.

9.5 Shall provide search engine customization capabilities

9.5.1 Shall support a thesaurus which NASA can customize to include parochial terms and acronyms

9.5.2 Shall support a stopword list which NASA can customize

9.5.3 Shall permit customization of query and results pages via templates to allow multiple sites to use the search engine while maintaining each site's unique user interface

9.5.4 Shall support wireless/hand-held devices and SOAP services based on NASA provided standards.

9.5.5 Shall allow disabling the display of any vendor attribution or logo from all pages

9.5.6 Shall allow for "Best Bets" or "Sponsored" items to be prominently displayed.

9.6 Shall provide and implement a strategy to enable NASA to improve the satisfaction score on "Search and Navigation" component of the American Customer Satisfaction Index.

10 STREAMING MEDIA CONTENT REQUIREMENTS

10.1 Shall provide streaming of live and stored content to the internet users in Real Media, Windows Streaming Media, QuickTime, Flash Streaming, MP3 and MPEG4 formats from NASA or NASA-approved non-NASA sources. Sources shall include dedicated encode, splits from NASA streaming servers and content multicast on NASA networks.

10.2 Shall provide live streams of NASA TV programming and any other NASA downlinks whenever available.

10.3 Shall provide multiple ingress points for streaming content generated from geographically distributed sources different network topologies.

10.4 Shall provide state-of-the-art streaming capability, including timely updates to servers in order to support the most popular codecs in common use.

10.5 Shall provide storage for 50 GB of stored digitized video streams which is expandable to 200 GB at the end of year 1 of the contract.

11 PORTAL PERFORMANCE REQUIREMENTS

11.1 Shall present the NASA portal page in a user's browser window in 8 seconds or less on a current production standard machine with DSL connectivity provided use of eTouch developed flash components or embedded applications under 50KB in size.

11.2 Shall work without the use of non-bundled web browser plug-ins, although content provided through a channel may require a plug-in.

11.3 Shall provide a browsable directory of NASA web sites tied to an underlying information architecture and metadata

11.4 Shall provide a mechanism to gather and respond to feedback and comments

11.5 Shall allow end-users to subscribe to and receive notifications based on event triggers (such as when a data channel receives a new object or a specific document changes within a data channel) or system-level changes

11.6 Shall incorporate and display documents and file types in common use, including but not limited to HTML (4.01 and below), XML, XHTML, plain text, Microsoft Office applications, PDF, Postscript, STEP-compliant CAD files, JPL, GIF, tiff, and digital video and audio (AVI, MOV, RM, WAV, and AIFF). Viewing is limited to client side viewer capability.

12. SYSTEM REPORTING AND METRICS REQUIREMENTS

12.1 Shall provide a secure, authenticated, Web-based metrics reporting site

12.2 Shall provide portal use metrics on an hourly, daily, weekly, and annual basis as requested for each site on the portal infrastructure

12.3 Shall maintain and retain metrics reports thoughout the period of performance

12.4 Shall provide portal use metrics per site or channel on a daily, weekly, monthly, and annual basis

12.5 Shall provide a list of search terms entered by users, number of times each search term was entered and percentage of the total it represents

12.6 Shall provide the number of distinct queries for a given hour, day, or month, including percentages of the total search queries it represents

12.7 Shall provide metrics in tabular and graphical mode.

12.8 Shall provide extension monthly or quarterly customized portal and streaming metrics analysis and reports in base and with extended management analysis of results and recommendations as requested by NASA.

13. SYSTEM SECURITY REQUIREMENTS

13.1 Shall conform with NASA Procedures and Guidelines, *Security of Information Technology*, NPR 2810 in reference to the portal system and in the handling and protection of Public Access (PUB) Information[5]

13.2 Shall conform with NASA Procedures and Guidelines, *Security of Information Technology*, NPR 2810.1 in reference to the portal system and in the handling and protection of ***all*** information that may be staged (restricted) within the portal or content management systems prior to approval for public release

13.3 Shall immediately inform NASA IT Security contact and provide details of attempted exploitation, break in, hacking or defacing of system

13.4 Shall present, within 60 days of the start of the contract, a security plan detailing how the vendor will meet requirements 13.1, 13.2 and 13.3, for approval by NASA's Chief Information Officer.

13.5 Shall provide NASA with any necessary updates to the vendor's IT security plan for the system.

13.6 Shall provide secure remote access to the portal infrastructure on NASA Headquarters standards for secure remote access.

14. CHARGEBACK MODEL REQUIREMENTS

14.1 Shall develop and implement the infrastructure and management tools necessary for NASA to create an efficient system of "charge backs", allowing the Agency to allocate the cost of portal support to organizations within NASA. The items to be considered for charge backs will include: labor hours, dedicated hardware and software, and dedicated bandwidth capacity.

14.2 The infrastructure will be designed in such a way as to allow costs for shared services to be allocated by NASA to subsidiary organizations on a pro rata basis.

[5] http://nodis3.gsfc.nasa.gov/library/displayDir.cfm?Internal_ID=N_PD_2810_0001_&page_name=main

15. FORUM AND POLLING TOOLS REQUIREMENTS

15.1 Shall develop and implement the infrastructure and tools necessary to establish forums with the following capabilities:
- 15.1.1 Un-moderated user forum with user login .
- 15.1.2 Semi-moderated user forum with user login where users are moderated by approval for posting and removal of postings after the fact.
- 15.1.3 Fully moderated for approving every post.

15.2 Shall develop and implement the infrastructure and tools necessary to establish polls and surveys with the following capabilities:
- 15.2.1 User created polls and surveys.
- 15.2.2 Management based polls and surveys that are completed when respondents log in.
- 15.2.3 Management based polls and surveys that are completed without respondents logging in.

16. ADDITIONAL SERVICES REQUIREMENTS USING IDIQ ORDERS

NOTE-This section (16) will be performed on an order basis in accordance with the Task Ordering Procedures of this contract.

16.1 Provide services as may be required to expand and/or extend NASA Portal and Secure NASA Portal use for internal NASA personnel.

16.2 Provide expansion of Portal syndication by installing syndication servers on non-portal sites, developing specialized syndication from the NASA portal as publicly available in accordance with syndication feeds.

16.3 Provide content migration support that may be required by existing and new sites in the Portal for above baseline support, expanded or new functionality, addition or expansion of applications and/or databases.

16.4 Expand portal infrastructure, servers, storage, etc. and/or provide additional software licenses when required by increased or expanded functionality or utilization.

16.5 Provide additional bandwidth as requested.

17. USABILITY TESTING FOR EXTERNAL AUDIENCES AND CONTENT PROVIDERS REQUIREMENTS

NOTE:This section (17) will be performed on an order basis in accordance with the Task Ordering Procedures of this contract.

17.1 Shall support usability testing, according to industry standards, with the audience user groups identified in the portal by NASA.

17.2 Shall provide a plan and results from usability tests based on the following evaluation criteria:

17.2.1 User perception of ease of navigation.
17.2.2 Consistency across operating systems e.g. PC, Macintosh, UNIX
17.2.3 Consistency across browsers and versions, to include at a minimum Netscape Navigator (version 4.7 and above), Microsoft Internet Explorer (version 4.x and above) and Apple Safari (version 1 and above)

17.2.4 Users understanding of the goals of the myNASA and www.nasa.gov sites and make sure they agree that the two sites meet those individual goals.

17.2.5 Accessibility in conformance with W3C Web Accessibility Initiative (available at http://www.w3.org/WAI) and the NASA Section 508 checklist (available at: (http://section508.nasa.gov/resources/resources_nasa.htm).

17.3 Shall provide a plan and results from usability tests, according to industry standards, of the content management system with content creators and editors, based on the following evaluation criteria:

17.3.1 Ability of the portal to accept automatic updates.

17.3.2 Ease of use for remote site management and publication

17.3.3 Responsiveness of the system to high usage (soak test).

17.3.4 Ease of ability of editorial group to promote and approve content for publication.

18. ELECTRONIC INFORMATION TECHNOLOGY (EIT)

The following EIT standards apply to this procurement:

§ 1194.21 Software applications and operating systems.

(a) When software is designed to run on a system that has a keyboard, product functions shall be executable from a keyboard where the function itself or the result of performing a function can be discerned textually.

(b) Applications shall not disrupt or disable activated features of other products that are identified as accessibility features, where those features are developed and documented according to industry standards. Applications also shall not disrupt or disable activated features of any operating system that are identified as accessibility features where the application programming interface for those accessibility features has been documented by the manufacturer of the operating system and is available to the product developer.

(c) A well-defined on-screen indication of the current focus shall be provided that moves among interactive interface elements as the input focus changes. The focus shall be programmatically exposed so that assistive technology can track focus and focus changes.

(d) Sufficient information about a user interface element including the identity, operation and state of the element shall be available to assistive technology. When an image represents a program element, the information conveyed by the image must also be available in text.

(e) When bitmap images are used to identify controls, status indicators, or other programmatic elements, the meaning assigned to those images shall be consistent throughout an application's performance.

(f) Textual information shall be provided through operating system functions for displaying text. The minimum information that shall be made available is text content, text input caret location, and text attributes.

(g) Applications shall not override user selected contrast and color selections and other individual display attributes.

(h) When animation is displayed, the information shall be displayable in at least one non-animated presentation mode at the option of the user.

(i) Color coding shall not be used as the only means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

(j) When a product permits a user to adjust color and contrast settings, a variety of color selections capable of producing a range of contrast levels shall be provided.

(k) Software shall not use flashing or blinking text, objects, or other elements having a flash or blink frequency greater than 2 Hz and lower than 55 Hz.

(l) When electronic forms are used, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

§ 1194.22 Web-based intranet and internet information and applications.

(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).

(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.

(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.

(d) Documents shall be organized so they are readable without requiring an associated style sheet.

(e) Redundant text links shall be provided for each active region of a server-side image map.

(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

(g) Row and column headers shall be identified for data tables.

(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

(i) Frames shall be titled with text that facilitates frame identification and navigation.

(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.

(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.

(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21(a) through (l).

(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive
technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

(o) A method shall be provided that permits users to skip repetitive navigation links.

(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

Note to §1194.22: 1. The Board interprets paragraphs (a) through (k) of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5, 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium:

Section 1194.22 Paragraph	WCAG 1.0 Checkpoint
(a)	1.1
(b)	1.4
(c)	2.1
(d)	6.1
(e)	1.2
(f)	9.1
(g)	5.1
(h)	5.2
(i)	12.1
(j)	7.1
(k)	11.4

2. Paragraphs (l), (m), (n), (o), and (p) of this section are different from WCAG 1.0. Web pages that conform to WCAG 1.0, level A (i.e., all priority 1 checkpoints) must also meet paragraphs (l), (m), (n), (o), and (p) of this section to comply with this section. WCAG 1.0 is available at http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990505.

§ 1194.31 Functional performance criteria.

(a) At least one mode of operation and information retrieval that does not require user vision shall be provided, or support for assistive technology used by people who are blind or visually impaired shall be provided.

(b) At least one mode of operation and information retrieval that does not require visual acuity greater than 20/70 shall be provided in audio and enlarged print output working together or independently, or support for assistive technology used by people who are visually impaired shall be provided.

(c) At least one mode of operation and information retrieval that does not require user hearing shall be provided, or support for assistive technology used by people who are deaf or hard of hearing shall be provided.

(d) Where audio information is important for the use of a product, at least one mode of operation and information retrieval shall be provided in an enhanced auditory fashion, or support for assistive hearing devices shall be provided.

(e) At least one mode of operation and information retrieval that does not require user speech shall be provided, or support for assistive technology used by people with disabilities shall be provided.

(f) At least one mode of operation and information retrieval that does not require fine motor control or simultaneous actions and that is operable with limited reach and strength shall be provided.

§ 1194.41 Information, documentation, and support.

(a) Product support documentation provided to end-users shall be made available in alternate formats upon request, at no additional charge.

(b) End-users shall have access to a description of the accessibility and compatibility features of products in alternate formats or alternate methods upon request, at no additional charge.

(c) Support services for products shall accommodate the communication needs of end-users with disabilities.

2.1.3 Webmetrics and Reporting

eTouch has provided NASA Urchin as the webmetrics analysis tool. Urchin is a state of the art tool that provides web use statistics for Web delivered content. Urchin is a web analytics software package designed to analyze web server log files and produce usage reports for one or more web sites. The fact that Urchin is a dynamic query based analyzer distinguishes it from static based webmetric tools that only provide fixed format metric reports.

Some of the key features of Urchin are:

- Secure, authenticated, web based metrics reporting site.
- Portal use metrics on an hourly, daily, weekly and annual basis as requested for each site in the portal infrastructure.
- Webmetrics are maintained perpetually
- Integrated report from all the web servers running the NASA Portal including the CDN servers at Speedera.
- Portal use metrics for each of the Channels defined in MyNASA.
- Maintain a list of search terms entered by users, number of times each search term was entered and percentage of the total it represents.
- Provides the number of distinct queries for a given hour, day, or month, including percentages of the total search queries it represents.
- Provides metrics in tabular and graphical mode.

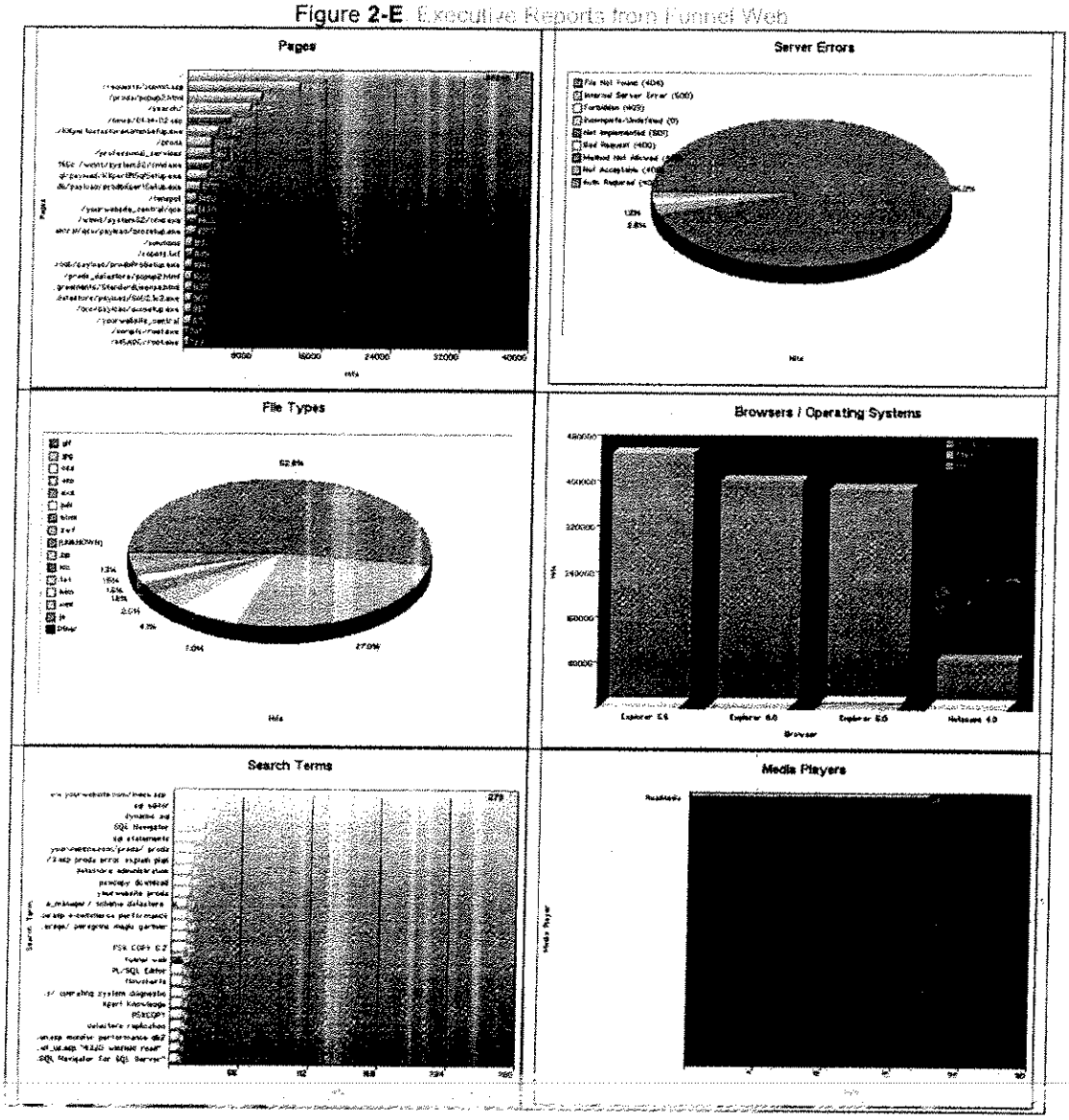
In addition to Urchin Webmetrics, eTouch can provide site owners with enhanced graphical, executive level reports using Funnel Web. The Funnel web reports offer sophisticated reporting of all online activity, providing insight into everything from server load to intranet activity. Funnel Web reports will be provided at no cost for all existing domains published from the CMS as of 12/1/04. eTouch will provide Funnel Web for additional domains added to the Portal after 12/1/04 under a task work order.

The Funnel Web Analyzer generates 50 different reports and graphs. These reports can be published in a variety of formats including PDF, html, word and excel.

Some of the reports provided by Funnel Web are listed out in Figure 2-E below.

eTouch has included several improvements to the existing Urchin Webmetrics system as [illegible] upgrading to the [illegible] an increase in the production analysis servers and log storage. Streaming and on demand video metrics will also be integrated with web metrics in a single analysis tool.

Figure **2-E** Executive Reports from Funnel Web



[Enclosure 1, item 19]

2.1.4 Forums, Survey and Polls

2.1.4.1 Forums

eTouch will install and administer Jive as the software platform to provide discussion forums. Jive Forums is a powerful open architecture application for creating and managing online communities. Forums can be setup for user self registration and can also support anonymous posts.

The forum can be administered in 3 primary modes:

- Fully moderated – All posts are routed to a moderator who approves or rejects posts.
- Semi moderated – Users are allowed to post content to the forums. These posts are then reviewed by the moderator on a daily basis and the moderator can then decide if a particular post needs to be deleted.
- Un-moderated. – There is no moderation for the forum.

The approach towards moderation can be defined per forum. eTouch will provide the infrastructure for these forums in the base contract scope. Resources needed for moderating these forums are not part of the base contract. However, eTouch can provide the moderation capabilities as additional services to NASA based on a task work order.

In addition to the moderation capabilities, profanity checks can also be applied which would automatically strike out any words with a match based on a profanity dictionary.

The forum software is currently being used for discussions around NASA center site migrations at http://portalforums.nasa.gov

2.1.4.2 Surveys and Polls

eTouch will provide the infrastructure necessary to provide the polls and surveys capabilities to NASA. Key features provided are:

- Polls such as daily/weekly polls can be created using this infrastructure. These polls can then be linked to from the NASA portal pages.
- NASA management can also create polls and surveys that can be completed once the user is logged in. These polls can be integrated as part of the MyNASA.
- Anonymous polls and surveys can also be created.

eTouch will use Opinio survey software from Object Planet to provide this functionality to NASA. Opinio, much like Jive for forums, provides the most customized feature-set possible, several aspects of Opinio was designed with this in mind. Its architecture allows it to be easily integrated with Vignette and Jive and will support web services in the future. Opinio easily handles large numbers of respondents to any number of surveys.

Opinio offers complete control of Survey design. All common question types, like multiple choice, rating/scale, lists, matrix/table etc, are pre-made and ready-to-use.

2.2 Hosting, CDN and configuration

We propose to utilize the Speedera Content Delivery Network (CDN) to cache NASA static content on edge servers, to lower the latency of access as experienced by citizens.

The minimum committed bandwidth available on a 95th percentile basis measured monthly is 300 Mbps. eTouch will continue to utilize the bandwidth management plan established in the previous contract. eTouch will be responsible for managing the bandwidth to billable usage below 300 mbps provided that NASA provides eTouch with complete authority to curtail usage at eTouch's discretion. NASA may choose to pre-purchase additional bandwidth during any month that usage is projected to exceed 300 mbps.

We propose to utilize two multi-carrier datacenters with nearly identical server configuration. Vericenter Inc., who began actually managing the datacenters after Sprint exited the hosting business, will become eTouch's direct sub-contractor. (Sprint continued as eTouch's legal sub-contractor with full responsibility to support Vericenter through the transition).

We propose to locate the servers in datacenters located in Denver, CO and Dallas, TX.

The proposed datacenter configuration is approximately double the previous capacity. The expansion is required to match increased base load usage, to increase capacity for site migrations underway, to meet the requirements for application hosting, and to integrate the Inside NASA Portal.

2.2.1 Amortized Hosting

This proposal is based on hosting prices formulated based on a 36 Month amortization rate. Therefore, a termination cost based on the formula 36 months minus the remaining months in the contract period from the date of award will determine the termination rate. In addition, the monthly price for any hardware installed subsequent to the award will also be determined at a 36 month amortization rate with a termination rate based 36 months minus the remaining months in the contract. The termination schedule for the base as well as the various options is shown in Appendix 11.

2.2.2 NASA Portal Datacenter and Content Delivery Infrastructure

eTouch will maintain and/or manage the hosting infrastructure required for the NASA Portal System. This includes the datacenters as well as the cached content delivery system, on demand file delivery system, on demand video streaming service and live video streaming service.

eTouch will ensure in combination with its partners (Speedera and Vericenter) that the datacenter and servers are available to provide the needed capacity for extremely large volume viewing of the portal during peak events and the routine high-level traffic expected during normal periods e.g. Mars Rover landing event of 2004.

With this proposal, we are formally transferring the previous Sprint contract directly over to Vericenter (Sprint's datacenter spin-off/sale partner). Our partner Vericenter has proven themselves during the past year, particularly during the Mars MER landing timeframe, with outstanding service in all areas. This switch is also timely due to the requirement for multi-carrier Internet backbone connectivity.

Vericenter has no corporate constraints to meet this requirement. This requirement also drives the need to yet again build out a new parallel datacenter in an alternate location and closing Sprint's Reston facility that does not have multi-carrier service. The cost of this move, like the previous move from Santa Clara to Denver, does not impact the contract cost in this proposal.

Figures 2-F and 2-G shows the functional diagram of what is included in both the Denver and Dallas datacenters. The diagrams show the configuration we feel meets NASA's initial contract infrastructure requirements.

Figure 2-F: NASA Denver Portal Infrastructure

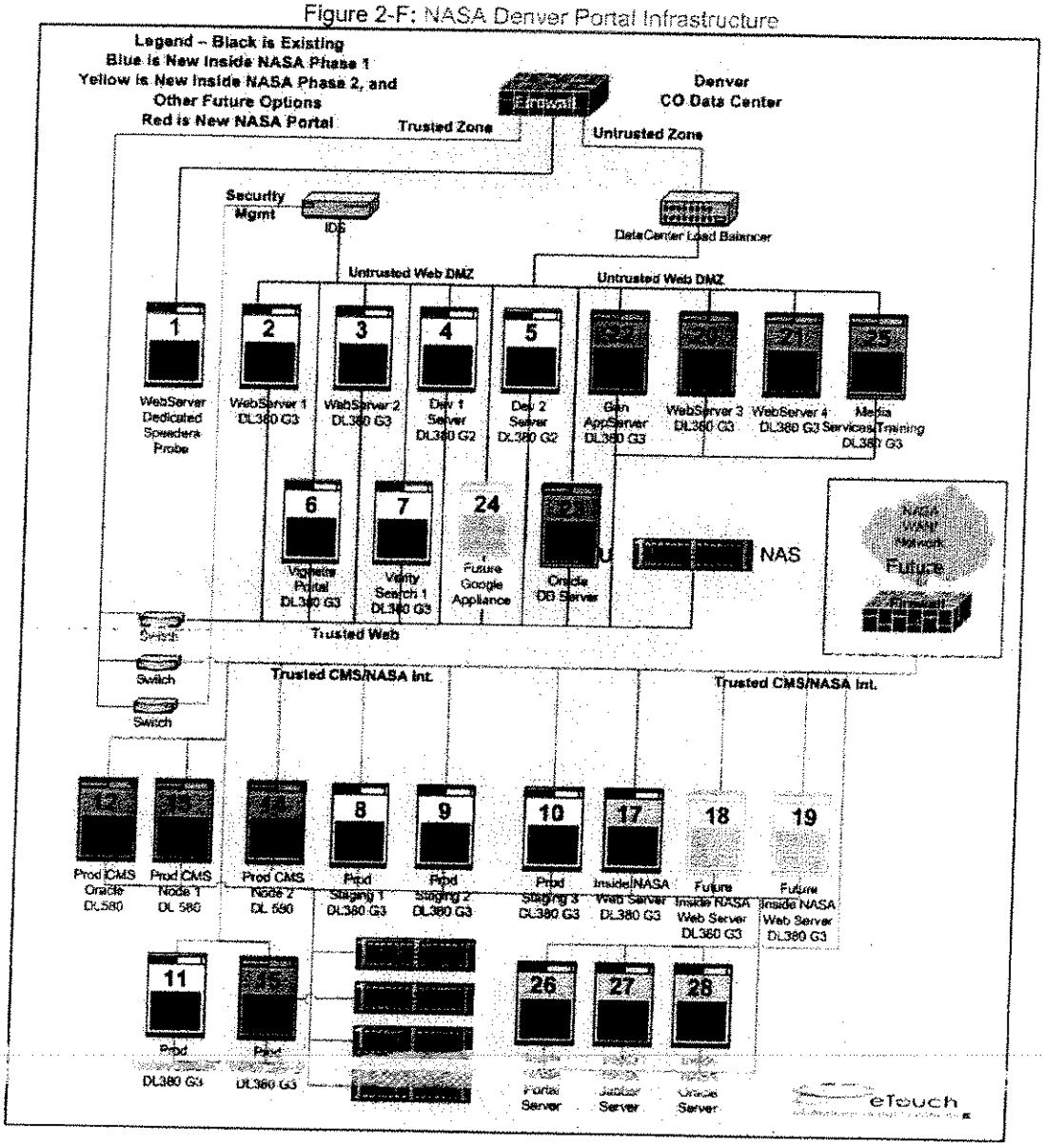
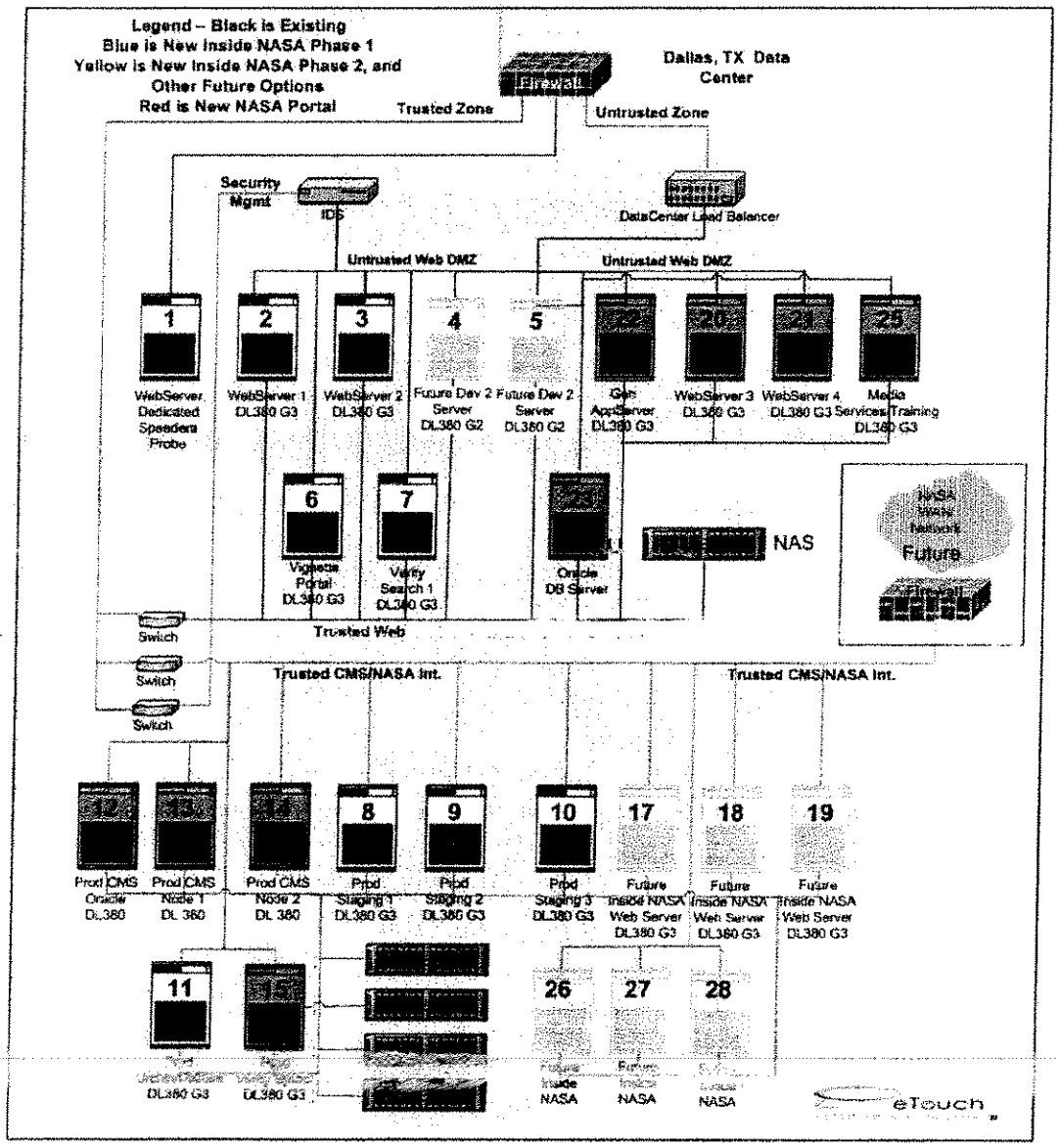


Figure 2-G: NASA Dallas Portal Infrastructure



Note that the datacenter elements are color coded to show existing equipment (black), new additions for public portal (red), and new additions for the internal portal are shown in blue for InsideNASA Phase 1, and yellow for other options. In addition, each server is numbered. Table 2-1, below describes the purpose for each of the new additions. Table 2-2 further breaks down each group of machine that contributes to a specific Portal functionality. This breakdown is required to provide NASA with the detailed costs for specific Portal functionality. This information will be used by eTouch to establish an auditable chargeback mechanism for Portal users. This proposal provides optional costs for including several functions such as "Inside NASA" and "Small Application Support". These options are included in the detailed price section.

Table 2-1: Purpose of each new addition

Server Numbers	Requirement
12, 13, 14	Upgrade of CMS Applications to meet existing user load requirements (Includes x4 provision for future users).
17, 18, 19	Servers required for deliver internal NASA restricted content. These would be implemented in Phase 1 and Phase 2 Inside NASA Options
20, 21	Web server expansions for next phase of migration
22, 23	General application servers to meet projected application migration to portal. These are included in the Small Apps. Option
15, 25	Capacity upgrades for existing servers running utilities at 100% capacity.
26, 27, 28	Servers required for migration of Inside NASA Portal. These would be implemented in Phase 1 and Phase 2 Inside NASA Options
Note	To isolate Training from Active production training will be operated from one of the Media Services Machines.

Table 2-2: Datacenter Machines by Portal Function

Machine #	Name	Total CPU's	Active CPU's	Description	Software	Licenses	Existing in 2004
1	Webserver	4	4	Speedera Probe	Apache	Covalent - 2 CPU	Yes
	Delivery	**4**	**4**				
2	Webserver 1	4	4	Public Web Server	Apache	Covalent - 2 CPU	Yes
3	Webserver 2	4	4	Public Web Server	Apache	Covalent - 2 CPU	Yes
20	Webserver 3	4	4	Public Web Server	Apache	Covalent - 2 CPU	No
21	Webserver 4	4	4	Public Web Server	Apache	Covalent - 2 CPU	No
	Hosting	**16**	**16**				
7	Verity Search	4	2	Verity Search Machine presently have 1 CPU disabled for License constraints, License upgrades are provided to expand these in 2005	Verity K2 Enterprise, WLExpress	Verity K2 - 2 CPU WL Express - 2 CPU	Yes
24	Google Appliance	4	0	New Simple Search	Google	Google – 2yr	No
15	Verity Spider	4	2	Verity Spider Machine	Verity K2 Spider	Verity K2 Spider - 2 CPU	Yes
	Search	**12**	**4**				
6	**My Nasa**	4	2		**Vignette Application Portal, WLS**	WLS - 2 CPU	**Yes**
23	My Nasa DB	4	2	FE Common Oracle Instance	Oracle	Oracle - 2 CPU	No
22	Gen App	4	2	General Application Box		WLS - 2 CPU	No
4	Dev Box 1	2	2	General Development (Only in Denver) Now have LLKN		VAP DEV - 2 CPU WLS - 2 CPU	Yes
5	Dev Box 2	2	2	General Development (Only in Denver) Now have LLKN		CMS DEV - 2 CPU WLS - 2 CPU Oracle - 2 CPU	Yes
	Small Apps	**12**	**8**				
25	MediaServices	4	4	List Server and CMS Dev	EZ MLM, Qmail, CMS Dev, Oracle, WLS	CMS Dev - 2 CPU Oracle DEV - 2 CPU WLS - 2 CPU	No
11	Urchin	4	4	Urchin Webmetrics	Urchin		No
	Utilities	**8**	**8**				

Machine #	Name	Total CPU's	Active CPU's	Description	Software	Licenses	Existing in 2004
12	CMS Node 1	8	8	CMS Node 1	CMS, WLS	CMS - 4 CPU WLS - 4 CPU	No
13	CMS Node 2	8	8	CMS Node 1	CMS, WLS	CMS - 4 CPU WLS - 4 CPU	Yes
14	CMS DB	8	8	CMS Database	Oracle	Oracle - 4 CPU	Yes
	CMS	**24**	**24**				
	CMS Training	**2**	**2**	**CMS Training Instance (on Mediaservices)**	**CMS Dev, Oracle, WLS**	**CMS Dev - 2 CPU Oracle DEV - 2 CPU WLS - 2 CPU**	**No**
8	Staging WebServer 1	4	2		Apache		Yes
9	Staging WebServer 2	4	2		Apache		No
10	Staging WebServer 3	4	2		Apache		No
	Staging	**12**	**6**				
17	Restricted Webserver 1	4	4		Apache		No
18	Restricted Webserver 2	4	4		Apache		No
19	Restricted Webserver 3	4	4		Apache		No
	Restricted Web	**12**	**12**				
26	Inside NASA App	4	2	Inside NASA Vignette APP	Vignette Application Portal, WLS	VAP - 2 CPU WLS - 2 CPU	No
27	Inside NASA DB	4	2	Common Restricted Oracle Instance	Oracle	Oracle - 2 CPU	No
28	Inside NASA Jabber	4	2	Jabber Instance			No
	Inside NASA	**12**	**6**				

2.2.3 Infrastructure Capacity and Scalability

eTouch has changed the design of the portal datacenter storage to allow for cost effective and timely expansion. These changes have been included it the proposed solution infrastructure provided in Figure 2-F and 2-G, and apply to CMS content repositories, web assets, and log management. This proposal also includes expanding the capacity of the production CMS.

The current CMS infrastructure is at its capacity in terms of user load, and storage. To serve the expected increase in the number of users and storage, eTouch has proposed several upgrades for the CMS infrastructure. These include additional CPUs, NAS, memory, network upgrades.

In addition, included in the base contract, eTouch will tune the NASA Portal infrastructure using available best industry practices to ensure ongoing optimum performance. We will monitor each of the server instances and all NASA Portal applications and advise NASA when additional servers, security hardware, or software licenses are required as a result of increased load, or increased content migration. We

have provided for an option provision to facilitate upgrade through appropriate Task Work Orders for upgrades necessary beyond the base contract capacity.

eTouch will ensure that HTML page delivery to DSL broadband users will be within 8 seconds. This delivery requirement specifically excludes non-eTouch provided embedded Flash or dynamically interactive page features, applets, etc. In addition, eTouch will ensure that text versions of the NASA Portal content pages are delivered to a NASA Portal user over an industry standard 56K modem in 8 seconds or less.

2.2.4 Availability

eTouch has maintained the two datacenter architecture as requested in the RFO which we believe is the most cost effective way to meet NASA's availability requirements. We have included the reduced cost impact of two alternative approaches as well in the form of to Contract options. The first option is operating with a single datacenter but with sufficient local redundancy to still maintain a reasonable high availability. The second option is operating with a single datacenter without redundancy, this is, minimal configuration to allow delivery of content with marginal minimum acceptable industry availability.

NASA has requested that the definition of 99.995% availability that previously only applied to publicly accessible web content be expanded to 99.995% availability of the portal infrastructure and the content within to NASA and Internet users. In addition, 100% availability is defined as 24 hours a day for every day of the year.

"Down time" is defined as an element of the portal infrastructure being offline or being so slow to respond that it is effectively offline. Total "down time" will include times when the Content Management System is unavailable to editors and content providers, when search services are unavailable to users and when caching or other infrastructure problems prevent pages from being served or updated.

The nature of the applications (CMS, Portal, and web site content), their respective user bases and delivery systems are very different, hence we feel that adding "Down time" across these apps is not appropriate or practical.

eTouch feels that the cost to ensure availability under the proposed definition would be excessive and proposes alternative definitions as follows

100% availability is defined as the total annual time that a specific application or web source is available to a specific audience or user group. "Down time" is defined as an element of the portal infrastructure being offline or being so slow to respond that it is effectively offline to the audience or user group requiring access to that portion of the system. "Down time" between separate applications, web pages, etc. will not be additive in determining overall availability.

Furthermore, eTouch proposes that specific applications of the portal be operated to provide specific availability as provided in Table 2-3.

Table 2-3: Application Availability

Portal Application	100% Availability	Proposed Availability	Annual Downtime, hours	Comments
Public Static Web Content	24 x 7	99.995%	0.44	Access and Updates
Public Dynamic Web Content and Applications	24 x 7	99.995%	0.44	Access and Updates
NASA Static Internal Web Content	Normal Business Hours + Special Events (~18) hours/day)	99.95%	2.34	Includes scheduled outages that will must be scheduled with 72 hours notice
NASA Internal Dynamic Web Content and Applications	Normal Business Hours + Special Events (~18 hours/day)	99 %	87.5	Includes scheduled outages that will must be scheduled with 72 hours notice

We believe that this balances the cost with the impact to specific user groups. Availability of NASA internal applications must also be considered on the basis of how respective user's productivity is impacted by an outage. As some internal applications will interact with NASA employees the availability must be tested with more precise measurements. This includes the impact of failures, latency and throughput, etc. in given 8 hour workday, not on an annualized basis. For example, a 10 minute outage in the middle of a heavy publishing day for the portal would have far more impact than a 5 hour outage from midnight to 5 a.m. in the morning. eTouch proposes to instead agree to apply its best efforts to insure that outages for internal applications are during normal business hours don't exceed 10 minutes in combined duration. This includes failures, latency and throughput related outages.

eTouch proposes that within 90 days following award of the order, eTouch will submit for NASA approval a Service Level Agreement (SLA) for all Portal applications as well as entire datacenters. These SLA's will incorporate all of the above availability as well as establish other pertinent limits including response time and escalation paths. Development of these SLA's is included in the contract baseline.

[Enclosure 1, item 14]

2.2.5 System Security

eTouch will ensure that the portal system and its operation, involving the handling and protection of Public Access (PUB) Information shall conforms with NASA Procedures and Guidelines, *Security of Information Technology*, NPG 2810.

In addition, the portal system and its operation, in the handling and protection of ***all*** information that may be staged (restricted) within the portal or content management systems prior to approval for public release shall conform to NASA Procedures and Guidelines, *Security of Information Technology*, NPG 2810.

Unless otherwise instructed by the NASA COTR, eTouch will immediately inform a COTR designated NASA IT Security contact with details of attempted exploitation, break in, hacking or defacing of system.

eTouch is submitting a draft of the Portal IT Security Plan with this proposal. Within 90 days following award of the order, eTouch will submit for NASA approval the final IT Security Plan detailing how eTouch will meet all requirements described above.

On an ongoing basis eTouch will provide NASA with any necessary updates to the Portal IT security plan for the system. Any secure remote access to the portal infrastructure shall at a minimum comply with NASA Headquarters standards for secure remote access as well as other demonstrated industry best practices.

[Enclosure 1, Item 20]

2.2.6 Bandwidth Allocation

With the exception of specifically designated special events, the 95th percentile baseline bandwidth for traffic over the portal and its content repository (or hosting solution) shall be no less than 300 Mbps. This amount is a total amount without differentiating where, or how it is allocated. In other words, usage can be any combination of live or on demand streaming, on demand download or cached content delivery. The guaranteed peak capacity within the 36 hour uncategorized, upper 5th percentile is 3,000 Mbps. Actual peak availability may be considerably more than this. For example, actual Portal peak delivery of more than 3,000 Mbps for un-scheduled events has been demonstrated since in the past.

At any time during the contract period where specific events are anticipated NASA may choose to pre-arrange for event period increases in the minimum usage provided for in a calendar month. In this case the guaranteed peak will generally be a determined by a factor that decreases from 10x the higher the pre-arranged amount. For example, during the pre-arranged Mars MER landing the peak for a monthly pre-commitment of 8,000 Mbps was 20,000 mbps, or 2.5x the commitment. For each specific event period bandwidth will be authorized by issuing a task work order. As has been the case in the past, eTouch will fully manage maximizing total bandwidth falling within the upper 5th percentile at no risk to NASA provided that eTouch is granted absolute authority by NASA to regulate delivery through any designated bandwidth usage area. Our requirements for fully managing NASA's total bandwidth consumption discussed in further detail in the Bandwidth Management section below.

Costs for the base bandwidth and billable excess bandwidth for optional increments of 100 mbps up to 1 Gbps is provided in Appendix 1.

Billable Excess Bandwidth shall be defined as any positive remainder (negative remainder equals zero (0)) left after subtracting the total of all minimum commitments bandwidths defined above for a given calendar month and/or any other minimum monthly bandwidth commitment for the given calendar month that may be provided for in active task work orders, from the sum total of all actual 95th percentile NASA Portal bandwidth used during the given calendar month. The sum total of all actual 95th percentile bandwidth used during the month shall be the sum total of all actual 95th percentile bandwidth usage reported by all recognized NASA Portal bandwidth providers. A recognized NASA Portal Bandwidth Provider shall be defined as any Sub-contractors to the Prime contractor who provide bandwidth used by the NASA Portal infrastructure. The Billable Amount for Billable Excess Bandwidth shall be determined multiplying the positive Billable Excess Bandwidth times the price provided for bandwidth

during that period that corresponds to the minimum commitment usage range for the month in which the sum total of all actual 95th percentile bandwidth used falls.

[Enclosure 1, item 13]
[Enclosure 1, item 18]

2.2.7 Bandwidth Management

eTouch has developed an extensive bandwidth management plan that allows continuous monitoring of actual bandwidth consumption at all times. Using this information eTouch can insure that NASA never exceeds the pre agreed upon monthly bandwidth maximum. eTouch will be responsible for NASA never exceeding the monthly maximum provided that NASA provides eTouch with complete authority to curtail usage at eTouch's discretion. eTouch will of course proactively advise NASA when projected usage will likely exceed the maximum. However, NASA agrees that eTouch ultimately has full authority to reduce, cut, or terminate users to insure that the maximum isn't exceeded.

eTouch can only offer this guaranteed cost containment approach because of our partnership with Speedera Networks. Other Cached Delivery Network (CDN) suppliers either discourage, or actually refuse to allow, manipulation of the unbilled upper 5th percentile of monthly use. They also don't provide an interface that allows live monitoring of actual bandwidth consumption. Because NASA's total bandwidth consumption includes the bandwidth across multiple consumers...CDN, datacenters, etc., having this capability allows eTouch to maximize NASA's utilization through the Bandwidth Management system. Doing so with any other willing CDN supplier would require considerable transition costs which would effectively increase the cost of delivered bandwidth.

2.2.8 Bandwidth Management

eTouch, as the prime contractor for the NASA portal, assumes the responsibility to remain constantly is touch with the CDN market. This includes staying up to speed on both the ongoing price of CDN services as well as improvements to the delivery technology. Because the Industry cost trend for these services is downward we propose that these costs be retested annually and contractual provisions made to allow reducing the price to NASA if the prevailing market price to eTouch declines substantially.

2.2.9 Software configuration and upgrades

The NASA portal system will include the following Software products. The version number, source and other details are listed below [Enclosure 1, item 4]

Table 2-4: Number of CPU's per software per data center

Software Licenses	# of CPUs	Existing	New
Oracle	18	6	12
Weblogic 6.1 SP4	12	4	8
BEA Weblogic Express 6.1 sp 4	2	1	1
Vignette Application Portal 4.1 SP3 (build 56)	4	2	2
Verity 4.5.1	2	1	1
Verity Spider 4.5.1	2	2	0
JIVE	2	2	0

Software Licenses	# of CPUs	Existing	New
JIRA	2	2	0
Opinio	2	0	2
eTouch CMS 1.3.52 Production	8	2	6
eTouch CMS 1.3.52 Development	4	0	4
Covalent Apache 2.0.43	8	4	4

[Enclosure 1, Item 4]

2.2.9.1 Amortized Software Licenses

eTouch has amortized major software license costs based on a 36 Month amortization rate. This includes production eTouch CMS software in the base, as well as Vignette Application Portal provided in the InsideNASA Portal. Therefore, a termination cost based on the formula 36 months minus the remaining months in the contract period from the date of award will determine the termination rate for these licenses. In the case of these licenses, the amortization has been calculated with no discount rate (i.e. no cost of amortization is applied). No other amortization of software licenses will be provided by eTouch. The termination schedule for the base as well as the various options is shown in Appendix 11.

2.2.9.2 Warrantees

The attached GSA schedule 70 contract terms include warrantee and maintenance terms for licensed eTouch software products. Other vendors have similar GSA contracts; the terms and conditions for Oracle are attached.

Software upgrades strategy:

The software products utilized in the software platform have dependencies on other products to function optimally (sometimes correctly). At a high level the dependencies are:

CMS – WebLogic – Oracle – Apache - Linux
Verity – WebLogic – Linux
Vignette – WebLogic – Oracle – Linux
Urchin – Linux

Historically all of the above software products have had two to six releases in a year. One or two of the releases include new functionality, while the remainder generally consists of bug fixes.

When new software versions are released by the respective manufacturer, we propose to evaluate compatibility with other software in the dependency matrix above. We propose to deploy new software versions only when all software in a sub-system has been "certified" or recommended by the vendor for specific version interoperability. We propose to deploy new versions on a test bed and then upon satisfactorily completing the integration tests roll it to production instances. This procedure generally may delay the introduction of new software by up to six months, sometimes a year, after release by the vendor.

This has been the procedure we have followed during the last two years of operation of the NASA Portal. We recommend it as a continued process for the current contract.

2.2.10 Deployment scenarios for interactive web apps

The current architecture of the datacenter based servers is Linux oriented which precludes the use of Microsoft applications without adding additional hardware or repurposing existing hardware which can be done at the direction of NASA under a task work order. In any case, adding any interactive web applications would have to be evaluated to determine the impact to:

- Hardware capacity
- CPUs
- Storage
- Network configuration
- Isolated sub-net
- Load balancing and firewall needs
- Security
- Server OS and application

To service the anticipated deployment of interactive web application or services, we propose a project lifecycle or management strategy as follows:

1. Log all requests into the support portal.
2. Establish contact points at Vendor (eTouch), Client (NASA org) and Contracting Office.
3. At the direction of the Contracting Office:
   - Assess security impact (based on software dependencies and products)
   - Determine functional feasibility
4. Prepare full cost estimate inclusive of
   - Software
   - Hardware
   - Networking
   - Admin labor
   - Development labor
   - Any other costs
5. Document roles and responsibilities of eTouch and NASA
6. Project plans
7. Funding approval, Task work order issued
8. Acquisition
   - Order Hardware/Software
9. Build, Test
10. Deployment

We propose to include the labor hours needed to support these activities up to and including estimation (step 5) into the base contract.

As a practical matter, if funding for analysis and estimation exists without cost to the 'Client' it serves as a catalyst and removes a great barrier to NASA orgs being interested in and actually take steps towards moving applications/data into the shared platform.

2.2.11 Option for Application Servers

eTouch has included an extra cost option that provides a production application server and associated Oracle database server for use by Portal users. The Office of Education presently has two applications that will require this capability. The Option includes sufficient technical services and software to facilitate installing and monitoring the applications.

2.2.12 Options for Inside NASA

eTouch has included an extra cost option that provides the datacenter infrastructure and software to host the Inside NASA Portal. Migration of the existing Portal from the present JPL servers is included in the Phase 1 Option that does not include any provision for failover in the second datacenter. Phase 2 InsideNASA adds the additional server capacity in the second datacenter to provide the same availability as other internal NASA applications. The proposal also includes sufficient technical services to maintain the infrastructure, applications, and general content delivery.

2.2.13 Option for Restricted Web Servers

eTouch has included an extra cost option that provides the datacenter infrastructure and integration services to delivery NASA internal restricted content from secure servers that are only accessible from within NASA restricted networks. The proposal also includes sufficient technical services to maintain the infrastructure. Phase 1 InsideNASA Options provides one server for this use while Phase 2 InsideNASA expands the server capacity to three in each datacenter.

2.2.14 Oracles Licensing

The licensing prices for all Oracle licenses in this proposal are based on the Proposed Oracle Agency wide pricing provided to eTouch by the CIO's office. This pricing is for Oracle Enterprise Versions. In the event that the proposed pricing doesn't occur, eTouch will provide licenses for the standard version.

[Enclosure 1, option item 2]

4.5 Key project team members and backup plan

The position of Program Manager is currently filled by David Valliere, and the position of Project Manager is currently filled by Eashwer Srinivasan. Both roles and individuals are considered key to the project.

Both David and Eashwer have currently expressed their desire to continue their respective positions. In the event at some point in future should they be unavailable, we propose to assign other resources that are equally skilled in management skills and necessary technology.

eTouch will not reassign these personnel to other projects without prior approval from NASA. However, with both of these individuals the total hours designated to NASA in this proposal represents 90% of their normal working time. The balance of 10% of their time is set aside for special projects associated with the strategic agenda of eTouch's CEO.

[Enclosure 1, item 23]

Following team structure is being proposed to adequately handle the tasks and responsibilities in the SOW. eTouch holds GSA schedule contract GS-35-F0627P. We propose to utilize this schedule to staff the project team.

4.5.1 NASA Portal Operational Support

The following is an outline of the specific functional roles and the responsibilities that the consultants assigned to these roles will have. In cases where the present responsibilities don't require a full-time resource, consultants may fill more than one role. In other cases where the requirements demand more than one consultant, the team is organized with a senior member who also acts as the group lead.

4.5.2 Portal Systems Administrators

Responsibilities include system administration of the applications running within the infrastructure as well as the integrated Oracle databases. This support role includes handling exceptional situations that may arise as well as the ongoing need to optimize the integrated applications as the number of user's changes. Databases, for example, must be regularly optimized as the volume of content changes. This also includes support required to roll out new versions of applications as they are provided. The CMS application, for example is scheduled for several new releases each year.

4.5.3 Help Desk Specialist

Responsibilities include providing direct support for NASA personnel when they need assistance or experiencing exceptional situations with their use of the CMS and/or associated Portal applications. The support call center is staffed 8am EST to 8pm EST, 5 days a week during the contract period, during business hours at all NASA Centers. Each specialist is required to be knowledgeable on all on-going processes in the Portal to ensure questions are answered in a timely fashion. If they are unable to provide assistance, they escalate the problem to additional resources needed to assist NASA or fix the problem quickly and efficiently.

[Enclosure 1, item 16]

4.5.4 Portal Server Administrators

The NASA Portal includes active and failover JAVA based Portal servers that are connected to synchronized Oracle databases. User login information and Portal user personalization information is maintained in the database. The Portal server presently used in production is Vignette's Epicentric product running on WebLogic. Responsibilities of portal server administration include setting up and maintaining and monitoring the Portal application. Collecting appropriate metrics to optimize performance and make changes requested or required to templates, web connectors, etc.

4.5.5 CMS Administrators

Responsibilities include password administration for the creation of new CMS users and maintenance of existing users. Also includes changes that are regularly required to work flows, modification to notifications, posting of messages for new version releases, etc. These resources are also responsible for purging assets that are no loner required in the CMS. All instances of CMS must be actively administered. Two in production, one test and training instance and one development CMS that is used for development of templates, alternate Information Architecture, etc. This also includes active monitoring, fixing minor 508 standard and other accessibility issues.

4.5.6 CMS Developers

Responsibilities include changes to the ongoing Information Architecture (IA) that will continue in the future. While these are assumed to be minor changes, there are many that happen across the number of sites that are in the CMS. Also responsible for global changes that may require IA as well as User Interface (UI) changes. These consultants are also responsible for some changes to presentation templates and authoring templates. Likewise, support of the ongoing operation of syndication and the periodic import of individual pages requested by Section Editors is included.

4.5.7 Search Administrators

Responsibilities include managing collection building and index updating, adding new URL's to the search spider and generally monitoring the daily operation of the Portal Search instances. They are also responsible for analyzing the search load and the infrastructure optimized to reflect the present distribution of users, etc. They are also responsible for updating the popular topics area within the portal based on the top search terms obtained from verity search.

4.5.8 Training Specialist

To meet the requirements for training requested in the RFO we are including a full time trainer who will be responsible for train the trainer training as well as some specially scheduled user training. This training may be done locally or via the Web via Webex. The costs for Webex sessions are not included in this proposal.

[Enclosure 1, Item 15]

4.5.9 Log Administrators

Responsible for generating all log analysis runs on a daily basis. Setting up and configuring reports and special request data gathering. The log administrator is also

responsible for maintaining the log analysis servers and associated storage for maintaining perpetual logs.

4.5.10 Security Engineers

Responsible for creating, updating the Security Plan as well as managing the communications with all NASA, Vericenter, and Speedera Security team members. The Security engineer schedules routine security audits and leads the analysis of results and reporting to management. This role requires thorough knowledge of all aspects of enterprise datacenter security.

eTouch is considering engaging a new partner who will provide preemptive security services. Companies providing these services may provide a much better depth, knowledge, and coverage than a single security engineer. The partner would only be engaged if they were mutually acceptable to NASA and eTouch.

4.5.11 Architects

Responsibility is to make significant changes to the design and operation of Portal Applications, Information architecture, taxonomy etc. as required by the users. Architects with many specialties are available when needed by the Portal team.

4.5.12 Project Leads

Responsibility is to provide leadership to the team and often to liaison directly with NASA. This consultant is also responsible for facilitating cross communications and supervision across all of the functional groups.

4.5.13 Utilizing JPL Expertise

eTouch has agreed that Training and QC roles may be more effectively provided through existing JPL personnel. NASA has the option of contracting for these services directly with JPL. In that case, eTouch will coordinate the activities of the individuals provided by JPL. The total costs provided for these roles, and the offset to the price proposed is shown in Table 5-2 – Other Pricing Offsets.

Attachment D
Option for Inside NASA Phase 1

This option provides the basic infrastructure, software licenses and support for the integration and ongoing operation of Inside NASA. Infrastructure for Phase 1 includes installation of four servers in one datacenter that may be configured independently in an internal failover mode or in combination for hosting the Vignette portal and restricted web content.

The price of this option identifies all costs for implementing the Inside NASA Phase I Option. There are other operating efficiencies that can be leveraged when this is combined with other projects such as LLKN. All resulting savings will be passed through to NASA, and could be shared with individual projects.

1/24/05

Attachment E
Option for Inside NASA Phase 2

The Optional Inside NASA Phase 2 provides for the full expansion of the Inside NASA infrastructure to provide the same high availability provided to all other internal NASA applications. This includes adding two additional restricted web servers to the datacenter infrastructure provided in Phase 1. It also includes the addition of six servers in the second NASA datacenters for full failover capability and delivery of all restricted web content.

Attachment F
Option for Small Application Servers

This option that provides a production application server and associated Oracle database server for use by Portal users. The Office of Education presently has two applications that will require this capability. The Option includes sufficient technical services and software to facilitate installing and monitoring the applications. This Option also includes the setup and ongoing monitoring of two DL 380 standard web servers.

Attachment G
Migration Services Option

The Optional Migration Services Option provides ongoing content migration support for the integration of all public NASA content into the NASA Portal. The services include full CMS configuration support, implementation of standard templates, migration of NASA tagged content, setup of site specific search, setup of ongoing Urchin Web profile, integration with email and list server capability and modifying metadata fields as required.

Attachment H
Option for Taxonomy and Search Integration

As an option, the contractor will provide the services required to fully integrate metadata generation and taxonomical content integration that will include:

- interfacing simple search results with the NASA Thesaurus as shown in Figures TAX-A and TAX-B
- Interfacing with Machine Aided Indexing (http://mai.larc.nasa.gov/) for auto-generation of "dc.subject.nasat" meta-data and MAI provided Taxonomy relationships.
- Investigate the use of linguistic tools along with Thesaurus to better relate everyday publicly used terms to Thesaurus terms.
- Design and develop a background process that cycles existing search collection contents through MAI and generates a CMS based "Metadata Index" for all NASA content.
- Publish a "Rich Descriptor File" (RDF) for all NASA indexed content that can be used by metadata focused applications.
- Fully integrate the Thesaurus with an integrated and automatic glossary for use on CMS generated content.

Figure **TAX-A:** Integration Search Results with the NASA Thesaurus

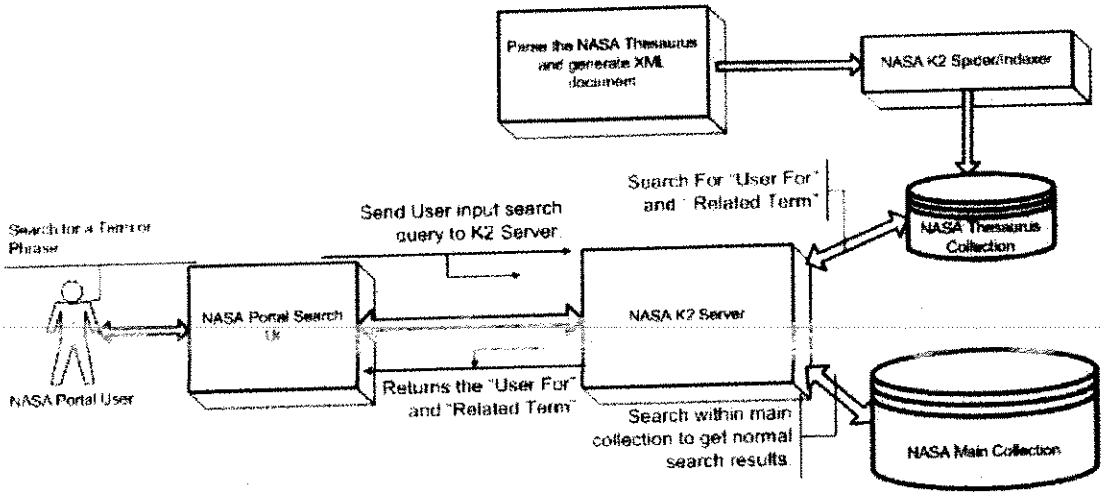
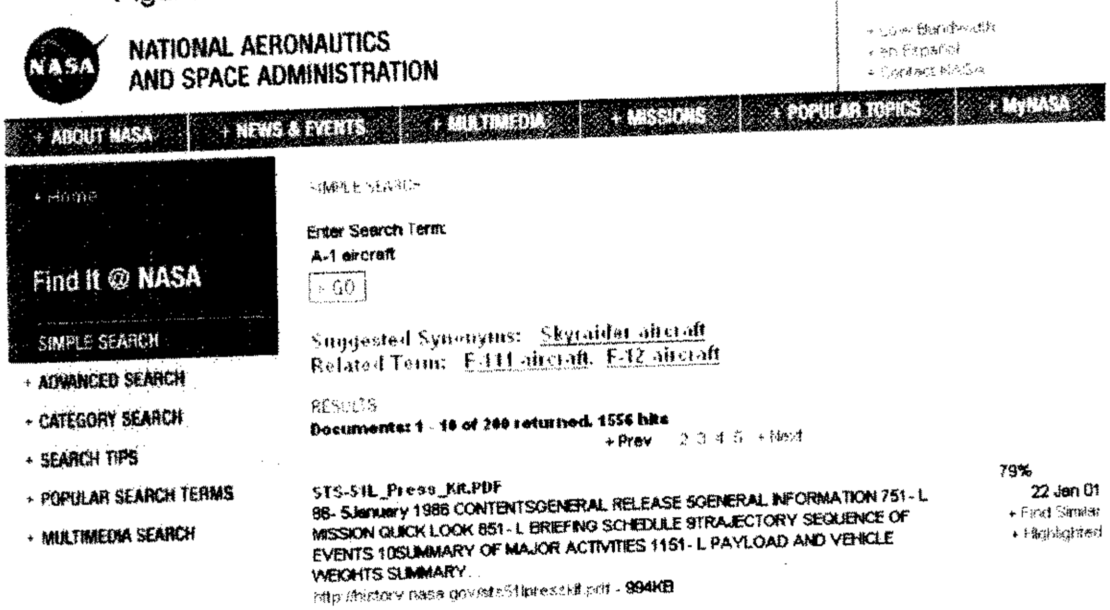


Figure **TAX-B:** [illegible]


NATIONAL AERONAUTICS
AND SPACE ADMINISTRATION
+ Low Bandwidth
+ en Español
+ Contact NASA
+ ABOUT NASA
+ NEWS & EVENTS
+ MULTIMEDIA
+ MISSIONS
+ POPULAR TOPICS
+ MyNASA
+ Home
Find It @ NASA
SIMPLE SEARCH
+ ADVANCED SEARCH
+ CATEGORY SEARCH
+ SEARCH TIPS
+ POPULAR SEARCH TERMS
+ MULTIMEDIA SEARCH
SIMPLE SEARCH
Enter Search Term:
A-1 aircraft
GO
Suggested Synonyms: Skyraider aircraft
Related Term: F-111 aircraft, F-12 aircraft
RESULTS
Documents: 1 - 10 of 200 returned. 1556 hits
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Attachment I
Google Appliance Option

The Contractor shall install a Google appliance to provide support for 90% of NASA's public web searches.. To minimize the pricing impact of the change in strategy eTouch recommends acquiring a single Google 5005 appliance that should meet simple search user requirements through for the first two years of the contract. The Google appliance is purchased with a two year license and for the proposed Option we have included the cost of purchasing a new license in year 3 and in year 5.

The Google 5005 device has internal failover built into it. However, the availability for a single instance still must be addressed. eTouch feels that the least costly way to achieve this is to continue to maintain the ability to shift simple search back to verity in the case of a Google outage. While this will temporarily reduce the quality of simple search results, the service will still be available 99.995% of the time.

Attachment J

Bandwidth pricing

Bandwidth pricing above baseline usage or for Determining Cost of Additional Bandwidth for Special Events

1. Table J-1 provides a schedule of cost for additional bandwidth above the base bandwidth quantity of bandwidth for one calendar month per the industry standard billing practices. Notwithstanding any otherwise agreed upon price for a particular event this pricing will apply for all Task Work Order that include additional bandwidth usage.

2. Actual monthly bandwidth usage above any minimum commitments defined in this contract or other active Task Work Order's specifying monthly minimum commitments for additional bandwidth shall be called Billable Excess Bandwidth and will apply if at any time the actual bandwidth consumed exceeds the minimum committed quantity. Billable Excess Bandwidth is defined as:

   Billable Excess Bandwidth shall be defined as any positive remainder (negative remainder equals zero (0)) left after subtracting the total of all minimum commitments bandwidths defined in this contract for a given calendar month and/or any other minimum monthly bandwidth commitment for the given calendar month that may be provided for in active Task Work Orders, from the sum total of all actual 95th percentile NASA Portal bandwidth used during the given calendar month. The sum total of all actual 95th percentile bandwidth used during the month shall be the sum total of all actual 95th percentile bandwidth usage reported by all recognized NASA Portal bandwidth providers. A recognized NASA Portal Bandwidth Provider shall be defined as any Sub-contractors to the Prime contractor who provide bandwidth used by the NASA Portal infrastructure. The Billable Amount for Billable Excess Bandwidth shall be determined multiplying the positive Billable Excess Bandwidth times the price provided in Table J-1 that corresponds to the minimum commitment usage range for the month in which the sum total of all actual 95th percentile bandwidth used falls.

Table J-1

Price for additional bandwidth

Actual base usage range	Price/mbps
0 - 300	Included in Baseline
301 - 499	$176
500 - 1,000	$154

In addition, NASA may pre-purchase bandwidth for special based on the schedule provided in Table J-2. Pre-purchases must be made a minimum of thirty days prior to the beginning of the calendar month in which the event falls.

Table J-2

Actual base usage range	Price/mbps
1,001 – 1,500	$100
3,001 - 9,000	$92
9,001 - 12,000	$92
> 12,001	$92

95th Percentile Billing Calculation

Usage is based on the 95th percentile rank of the sustained usage. This is determined as follows:

The total number of bits (in both octets in and octets out) is collected in 5 minute intervals. The number of bits is then divided by 300 seconds (5 minutes x 60 seconds) to derive one inbound sample and one outbound sample.

In the following example, 300,000 inbound bits were collected and 400,000 outbound bits were collected over a five minute interval. The bits/second is calculated as follows:

Inbound : 300,000 bits/(5min * 60 seconds) = 1,000bits/sec
Outbound: 400,000 bits/(5min * 60 seconds) = 1,333.3 bits/sec

Using this method to collect samples in 5 minute intervals, approximately 8,640 samples (both Inbound and Outbound) will be collected over a 30 day period.

60 minutes/5 minute samples = 12 samples per hour.
12 samples per hour x 24 hours = 288 samples per day.
288 samples per day x 30 days = 8,640 samples per month.

The total monthly sample size will then be sorted in descending order (from largest to smallest) in two separate groups (Inbound and Outbound). The top 5% of the sample size (roughly 432 of the top ranked samples, representing approximately 36 hours of samples) is removed. The next highest sample after the removal of top 5% is the 95th percentile sustained usage level for the month. The highest 95th percentile sample between the Inbound and Outbound samples is considered the sustained usage level for billing purposes. The actual billable cost is determined by multiplying the highest 95th percentile sample, after dividing by 1,000,000 to convert to mbps, times the cost of bandwidth for that use level.

If there is a minimum monthly bandwidth commitment, this commitment is first subtracted from the 95th percentile sample. If the result is positive, the difference times the cost of bandwidth equals the additional bandwidth charge for the month. If the difference is zero or negative there is no additional bandwidth charge for the month.

Attachment K
Support for NASA Portal and Portal Sites

NASA has identified several expansion projects for the NASA Portal for the proposed contract period. In each case the need has been identified however the Scope, Deliverables, Schedule and Price have not been addressed. This option will provide a means to accommodate these needs.

The Contractor and NASA will participate in specifying requirements for each project as the need arises. Once the project Scope, Deliverables, Schedule have been mutually agreed upon a Task Work Order for the project will be executed, subject to commitment of funds by responsible NASA officials/organizations. The basis for establishing the cost will be the cost provided for eTouch professional services in addition to the cost of any additional software or hardware required by the scope. The schedule for eTouch Professional services labor categories through each of the proposed contract years is provided in Table K-1.

Table K-1

Schedule for eTouch PS labor categories

Labor Category Title	Year 1	Year 2	Year 3	Year 4	Year 5
Sr. Program Manager					
Program Manager					
Project Manager					
Sr. Business Analyst					
Business Analyst					
Jr. Business Analyst					
Sr. Database Analyst					
Database Analyst					
Jr. Database Analyst					
Architect					
Sr. Systems Analyst					
Systems Analyst					
Jr. Systems Analyst					
Sr. Software Engr					
Software Engineer					
Jr. Software Engineer					

A 2% discount will be applied on all rates when calculating labor costs for IDIQ orders.

Attachment L
Infrastructure Expansion and Software License Additions

The NASA Portal system was implemented to meet the load and use requirements provided for the initial project period. In the eTouch deployment, provided a significant margin for peak capacity use to insure that the minimum requirements were always met. The infrastructure is also designed to allow quickly scaling to accommodate Portal growth. As Portal use grows Portal elements affected by the growth will have to be expanded. This option addresses the cost for expanding the infrastructure hardware and Portal associated software when Portal use requires expansion.

Data Center Expansion

Servers and Security

The NASA Portal datacenters are configured to allow easily adding additional network servers for both web delivery and Portal application use. Table L-1 provides the cost for incrementally expanding the datacenter server and network hardware and associated managed services.

Extended Storage Capacity

Storage capacity may be impacted by Portal expansion at several different layers in the Portal infrastructure. These include storage of the content retained within the Portal Content Management system, published Portal web server data storage, specifically designated extended datacenter network based storage, and incremental on demand file and streaming storage. Table L-2 provides the cost for these extended storage solutions. However, storage above 500GB will be negotiated as the need arises.

Table L-1: Datacenter Expansion

Datacenter Expansion		
Item	**Non Recurring Charge**	**Ongoing Monthly Recurring Charge**
Servers		
Fully Monitored DL380 w/2 CPUs / 1GB RAM / 3 x 144GB RAID 5	$2,000	$1,400
Fully Monitored DL580 w/4CPUs / 8GB RAM / 2 x 72GB RAID 1	$2,500	$2,650
Security		
Fully Managed 1 GHz Firewall with 4 Active 1 GHz Ports and one active Fiber Port	$10,000	$2,500
Fully Managed Intrusion Detection System	$2,000	$1,500
Storage		
Localized Servers (Tape backup) <200 GB	$1,000	Based on tape backup frequency
Archived, high availability, redundant SAN > 1000GB/datacenter. Backup schedule determined as a function of frequency of update.	Best cost of content transfer will be determined by mutual agreement	TBD
CDN based on demand file & streaming (NOT archival)[1] <500GB		Incremental per month fee/GB $100
Speedera Smart Storage Manager™ (NOT archival) <1000GB	$2,500	Incremental per month fee/GB $20
Note 1 – Year 1 - 15GB included in Baseline, Year 2 - 50GB included in Baseline, Year 3 - 50 GB included in Baseline.		

Portal Software Licenses

Portal Software schedule is shown in Table L-2.

TABLE L-2: Software Licensing and Maintenance

Software	Cost/CPU
K2E Advanced Categorization Bundle, per CPU, 1000 users	$62,264
K2E Recommendation Engine, per CPU, 1000 users	$13,219
K2E Profiler, per CPU, 1000 users	$56,423
K2E ODBC Gateway, Per server	$16,121
K2E External Spider, up to 50 additional Sites	$32,242
K2E Non-Production Bundle, Unlimited CPU's, Development	$62,447
Ultraseek Main	$75,000

Maint. K2E Advanced Categorization Bundle, 2 CPU's, 1000 users	$12,459
Maint. K2E Recommendation Engine, 2 CPU's, 1000 users	$2,644
Maint. K2E Profiler, 2 CPU's, 1000 users	$11,285
Maint. K2E ODBC Gateway, Per server	$3,224
Maint. K2E External Spider, up to 50 additional Sites	$6,448
Maint. K2E Non-Production Bundle, Unlimited CPU's, Development	$12,489
Ultraseek Main	$15,000

IDIQ SERVICES

1/24/05

Software	Cost/CPU
Prod CMS (EE) per CPU	$63,857
Maint. Prod CMS (EE) per CPU	$14,048
Training/Development CMS (EE) per CPU	$31,928
Maint. Training/Development CMS (EE) per CPU	$7,024
Prod Syndication Server (EE) per CPU	$42,500
Maint. Prod Syndic (EE) per CPU	$9,350
Training/Development Syndic (EE) per CPU	$21,250
Maint. Training/Development Syndic (EE) per CPU	$4,675
Existing Oracle Database Standard Edition per Processor	$0
Software Updates One Year	$0
7 X 24 Annual Maintenance Production Support per CPU	$2,640
New Oracle Database Standard Edition per Processor	$8,800
Software Updates One Year	$0
7 X 24 Annual Maintenance Production Support per CPU	$1,936
WebLogic Base or Advantage Edition License v5.1 - 7.0 - per CPU	$8,500
7 X 24 Annual Maintenance Production Support per CPU	$2,100
Standby WebLogic Base or Advantage Edition License v5.1 - 7.0 - per CPU	$0
Standby WebLogic Base or Advantage Edition License v5.1 - 7.0 - per CPU	$1,050
WebLogic Express License v5.1 - 7.0 - per CPU	$421
7 X 24 Annual Maintenance Production Support per CPU	$650
Vignette Portal Server	$75,000
7 X 24 Annual Maintenance Production Support per CPU	$16,500
Urchin Version 5.0	$2,500
Jive Forums - Enterprise license (unlimited use)	$5,800
Jira Tracking - Professional Version	$3,000
Opinio	$1,000

Attachment M

Usability Study

eTouch shall support usability testing, according to industry standards, with the audience user groups identified in the portal by NASA. eTouch will provide a plan and results from usability tests based on the following evaluation criteria:

1. User perception of ease of navigation.
2. Consistency across operating systems e.g. PC, Macintosh, UNIX
3. Consistency across browsers and versions, to include at a minimum Netscape Navigator (version 4.7 and above), Microsoft Internet Explorer (version 4.x and above) and Apple Safari (version 1 and above)
4. Users understanding of the goals of the myNASA and www.nasa.gov sites and make sure they agree that the two sites meet those individual goals.

Accessibility in conformance with W3C Web Accessibility Initiative (available at http://www.w3.org/WAI) and the NASA Section 508 checklist (available at: (http://section508.nasa.gov/resources/resources_nasa.htm).

NASA will be allowed to view the study in process as appropriate, online and/or in person. A test plan before the study will be submitted to NASA for comment, as well as a verbal and written summary of the study and recommendations for specific changes or enhancements to the site.

The cost for the Usability Study described above will be $100,000/study.

Attachment N

Content Migration Project Units

To effectively handle establishing the overall effort and therefore the associated cost of migrating any site into the Portal infrastructure and/or the Portal content management system, the contractor will first characterize the source of the content and the desired destination of the migration.

This may include:

- Analysis of content source
  - The size of the site in numbers of assets, html pages, volume of assets, etc.
  - The site homogeneity relative to:
    - Presentation
    - Organization
    - Description and classification
    - Structure
    - Uniformity of code
    - The site's focus (portal vs. topical), and implementation (static vs. dynamic)

- Analysis of Destination
  - Sites migration that may have various destinations within the Portal
  - Site migrated to the server infrastructure
  - Site migrated with existing IA and content but within the Portal CMS
  - Site content disassociated from existing IA and repurposed into the Portal IA
  - Site moved within the Portal CMS but with an entirely new IA and new branding
  - Site content merged with new content in a new IA
  - Site content required integration of new applications

- Modeling of the desired end result, including but not limited to the look and feel as delivered through presentation templates or other means, workflows, authoring templates, navigation, and IA of the planned site. Such modeling will include a description of the migration plans and constraints, level of reuse of existing workflows and presentation and authoring templates, and quality assurance responsibilities. This includes the names, roles (editor, publisher, QA, etc.), and IP addresses of expected users.

- Planned work will include, as described above, analysis, modeling, and destination completion, including (as required) creation of the navigation and information architecture elements, workflows, presentation and authoring templates, integration with search and browseable categories, DNS resolution, and testing. The contractor will keep NASA informed at critical steps for each site migration, including: initial customer contact, requirements gathering and analysis, results of analysis and modeling, destination plan, test results (must be approved by NASA), and switch over. All quotes will be negotiated directly with

NASA and quotes will be given to the customer only by NASA and not directly from the contractor.

Based on the mutual agreement of eTouch and NASA each site will be characterized as to where it falls within a predefined segment of effort called a Content Migration Project Unit (CMPU) which is defined as one person week of effort at a cost of $4600. A site migration's level of effort will be determined by the number of CMPU's required to complete the migration. Once the number CMPU's is mutually agreed upon, an order for the migration will be written that identifies the total number of CMPU's required to fulfill the agreed the migration. Table N-1 provides a guide to estimate the Content Migration Project Unit required for migrating a site containing 500 or less pages based on the complexity of the original content and the desired migration approach. In addition to the migration effort estimated by the matrix, the actual migration cost will also include, as requested by the site owner, the cost of template preparation, customized branding or specialized information architecture, graphics preparation, email processing and/or subscription services, integrated applications or authentication, modification to the standard Portal workflow, etc.

TABLE N-1 Estimated map from Complexity Matrix Sheet 1

Estimated Migration Complexity Matrix								
Site Structure	Content Structure	Scope of Migration	Type of Content	Elements Imported	Migration Approach	Preparing Import Process	Migration and QA	Total Estimated Content Migration Units
Homogeneous	Structured	Detail Page	News	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.4	1.6	2
Homogeneous	Structured	Detail Page	Story	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.8	2.4	3.2
Homogeneous	Structured	Detail Page	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	4	5.2
Homogeneous	Structured	Detail Page	Story	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	5.6	6.8
Homogeneous	Structured	Detail Page	Gallery	Multi-Element Properties) import	existing Authoring/Presenta tion/ Metadata Properties)	1.2	4	5.2
Homogeneous	Structured	Detail Page	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	5.6	6.8
Homogeneous	Structured	Detail + Index Pages	News	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	6.4	7.6
Homogeneous	Structured	Detail + Index Pages	story/Articles	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	7.2	8.4
Homogeneous	Structured	Detail + Index Pages	story/Articles	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	8.8	10
Homogeneous	Structured	Detail + Index Pages	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	7.2	8.4

Homogeneous	Structured	Detail + Index Pages	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	8.8	10

Estimated migration complexity matrix - Sheet 2

Continued
Estimated Migration Complexity Matrix

Site Structure	Content Structure	Scope of Migration	Type of Content	Migration Approach	Migration Approach	Preparing Import Process	Migration & QA	Total Estimated Content Migration Units
Homogeneous	unstructured	Detail Page	News	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.4	1.6	2
Homogeneous	unstructured	Detail Page	Story	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.4	2.4	2.8
Homogeneous	unstructured	Detail Page	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	0.8	4	4.8
Homogeneous	unstructured	Detail Page	Story	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	0.8	4.8	5.6
Homogeneous	unstructured	Detail Page	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	0.8	4	4.8
Homogeneous	unstructured	Detail Page	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	0.8	4.8	5.6
Homogeneous	unstructured	Detail + Index Pages	News	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1	6.4	7.4
Homogeneous	unstructured	Detail + Index Pages	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1	7.2	8.2
Homogeneous	unstructured	Detail + Index Pages	Story	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1	8	9
Homogeneous	unstructured	Detail + Index Pages	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1	7.2	8.2
Homogeneous	unstructured	Detail + Index Pages	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1	8	9

Estimated migration complexity matrix - Sheet 1

Continued
Migration Complexity Matrix

Site Structure	Content Structure	Scope of Migration	Type of Content	Migration Approach	Migration Approach	Preparing Import Process	Migration & QA	Total Estimated Content Migration Units
Heterogeneous	Structured	Detail Page	News	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.4	1.6	2
Heterogeneous	Structured	Detail Page	Story	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	0.6	2.4	3
Heterogeneous	Structured	Detail Page	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1	4	5
Heterogeneous	Structured	Detail Page	Story	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1	4.8	5.8

Heterogeneous	Structured	Detail Page	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1	4	5
Heterogeneous	Structured	Detail Page	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	4.8	6
Heterogeneous	Structured	Detail + Index Pages	News	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	6.4	7.6
Heterogeneous	Structured	Detail + Index Pages	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	7.2	8.4
Heterogeneous	Structured	Detail + Index Pages	Story	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	8	9.2
Heterogeneous	Structured	Detail + Index Pages	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	1.2	7.2	8.4
Heterogeneous	Structured	Detail + Index Pages	Gallery	Multi-Element Properties) import	new Authoring /Presentation /Metadata Properties)	1.2	8	9.2

Estimated migration complexity matrix - Sheet 1

Continued Migration Complexity Matrix								
Site Structure	Content Structure	Scope of Migration	Type of Content	Migration Approach	Migration Approach	Preparing import Process	Migration & QA	Total Estimated Content Migration Units
Heterogeneous	unstructured	Detail Page	News	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	1.2	4	4
Heterogeneous	unstructured	Detail Page	Story	Single Element Property import	existing Authoring/Presentation/ Metadata Properties)	1.2	5.6	5.6
Heterogeneous	unstructured	Detail Page	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail Page	Story	Multi-Element Properties) import	New Authoring /Presentation /Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail Page	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail Page	Gallery	Multi-Element Properties) import	New Authoring /Presentation /Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail + Index Pages	News	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail + Index Pages	Story	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail + Index Pages	Story	Multi-Element Properties) import	New Authoring /Presentation /Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail + Index Pages	Gallery	Multi-Element Properties) import	existing Authoring/Presentation/ Metadata Properties)	TBD	TBD	TBD
Heterogeneous	unstructured	Detail + Index Pages	Gallery	Multi-Element Properties) import	New Authoring /Presentation /Metadata Properties)	TBD	TBD	TBD

Attachment O
Expanded Internal NASA Portal Use

NASA may leverage the www.nasa.gov External Portal project for Internal Portals. The NASA Portal is already being used to provide publicly visible content to NASA employees and NASA contractors. Plans are in place to expand this use to restricted content with authentication. This adaptability may be easily extended to additional needs and the NASA Portal hardened firewall already provides open access to all NASA/JPL locations. The NASA External Portal project has a proven architecture consisting of several technologies that would be useful and apply directly to building and operating NASA's Internal Portals.

Some of the software, services, infrastructure and methodology of interest in the External Portal include hardened, secure, managed data centers and networking infrastructure, the Portal Server, Search Engine, Content Management System, Log analysis, Section-508 compliance, subscription services, Syndication and the Project Management methodology employed in Phases I-II-III of the www.nasa.gov Portal contract.

As an example, Internal NASA portals may easily be set up within the datacenter infrastructure or the modular NASA Portal applications can be placed in other data center locations.

The contractor and NASA will participate in specifying requirements for each Internal Portal project. Once the project Scope, Deliverables, Schedule and Price have been negotiated, an Order for the project will be executed. The basis for establishing the cost will be the labor rate cost in addition to the cost of any additional software or hardware required by the scope.- Infrastructure Expansion and Software License Additions provides the pricing schedule for software and hardware.

Attachment P
Customized Portal Metrics and Reports

The NASA Portal uses Urchin as the primary Web metrics reporting tool that provides use statistics for Web delivered content. A second tool is provided by Speedera for statistics on Consolidation of the two sources of metrics and organizing into acceptable management focused reports are left to NASA Portal content owners. The Customized Portal Metrics Analysis and Reports are available from eTouch.

These reports provide a means to have consolidated monthly or quarterly reports established before hand. The reports include detailed viewer statistics that are easier to interpret that pre-structured reports provided by Urchin. This analysis will cover data from Speedera, Urchin, and any user data stored in database form.

They also include implied analytics and in depth written analysis of results and suggested strategies to improve weaknesses and leverage strengths. Examples are shown below. The reports are available for a setup cost of $35,000 and a $5,000/month for monthly analysis or $8,000/quarter for quarterly analysis. In each case an annual report is also included.

Reports - Detailed View

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Performance Metrics for NASA.gov

July 2003

PARTICIPATION

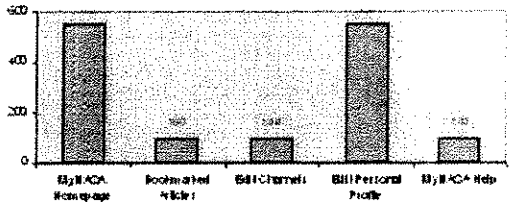
SEARCH (page views)	Jul-03	Jun-03	Change	YTD
Simple Search	25,000	18,000	39%	60,000
Advanced Search	25,000	18,000	39%	60,000
Category Search	25,000	18,000	39%	60,000
Search Tips	25,000	18,000	39%	60,000
Popular Search Term	25,000	18,000	39%	60,000

POPULAR ON-SITE SEARCH TERMS			
1	mars	6	saturn
2	picture of the day	7	space exploration
3	hubble	8	international
4	Mars	9	germany
5	jobs	10	canadarm

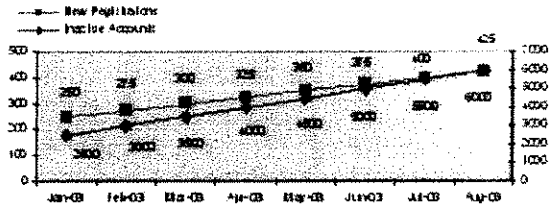
REGISTRATION

MyNASA NAV (page views)

	Jul-03	Jun-03	Change	YTD
MyNASA Homepage	550	400	38%	9,000
Bookmarked Articles	100	50	100%	600
Edit Channels	100	50	100%	600
Edit Personal Profile	550	400	38%	9,000
MyNASA Help	100	50	100%	600

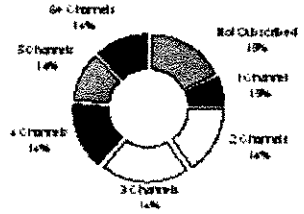


ACCOUNTS	Jul-03	Jun-03	Change	YTD
Total Registered Users	550	400	38%	9,000
New Registrations	550	500	10%	9,000
Inactive Accounts	5,000	5,500	-9%	9,000
Profile Changes	550	400	38%	9,000
Image Changes	550	400	38%	9,000
Reordered Channels	550	400	38%	9,000



CHANNEL USE	Jul-03	Jun-03	Change
Users Not Subscribed to Channels	800	400	100%
Users Subscribed to 1 Channel	300	400	-25%
Users Subscribed to 2 Channels	700	400	75%
Users Subscribed to 3 Channels	900	400	125%
Users Subscribed to 4 Channels	700	400	75%
Users Subscribed to 5 Channels	500	400	25%
Users Subscribed to 6+ Channels	550	400	38%

CHANNEL USE



CHANNEL POPULARITY	% Subscribed			% Unsubscribed							
	Jul-03	Jun-03	Change	Jul-03	Jun-03	Jul-03	Jun-03	Jul-03	Jun-03	Jul-03	Jun-03
Aeronautics	60%	48%	25%	50%	48%	6%	8%	15%	12%	4%	8%
Educator Resources	20%	35%	-43%	6%	8%	2%	4%	10%	20%	8%	3%
International Space Station	50%	20%	150%	8%	3%	6%	5%	5%	8%	5%	7%
Looking at Earth	10%	8%	25%	5%	7%	15%	10%	15%	11%	4%	4%
NASA in the Lab	5%	15%	-67%	4%	4%	50%	42%	5%	9%	2%	2%
NASA Technology	6%	81%	-93%	2%	2%	6%	12%	15%	9%	46%	36%
Our Solar System	85%	65%	31%	8%	9%	12%	7%	5%	19%	7%	4%
Stars & Galaxies	90%	6%	1400%	7%	4%	2%	6%	15%	10%	6%	4%
The Space Shuttle	12%	5%	140%	12%	15%	1%	6%	15%	2%	18%	32%

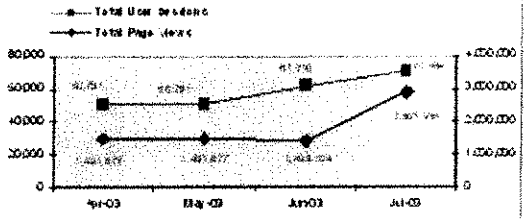
Reports - Graphical View

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

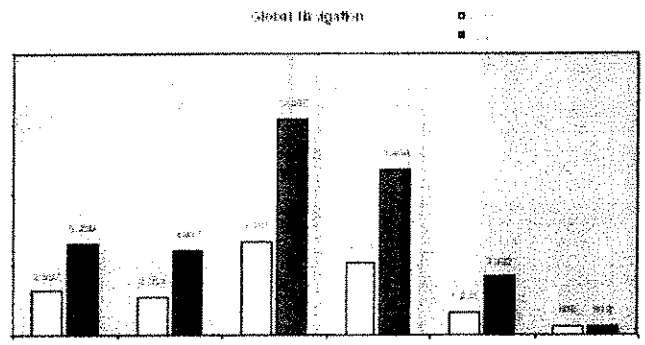
Performance Metrics for NASA.gov
July 2003

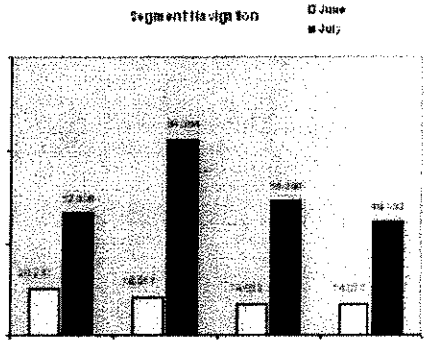
VISITATION

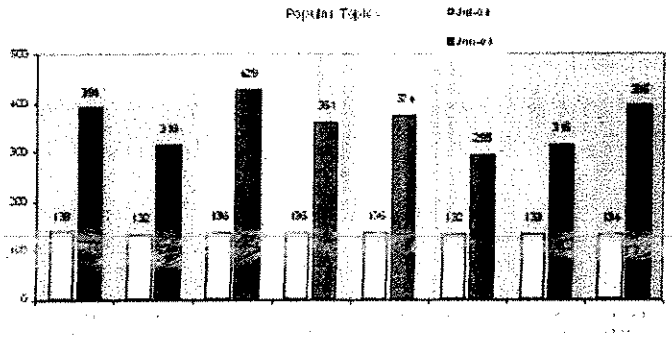
OVERALL SITE REPORTING	Jul-03	Jun-03	Change	YTD
Total User Sessions	70,984	61,710	15%	420,000
Total Page Views	2,891,936	1,408,104	105%	1,400,000
Avg. Sessions / Day	2,290	2,057	11%	2,100
Avg. Page Views / Day	93,288	46,937	99%	50,000
Avg. Page Views / Session	41	23	79%	30
Avg. Minutes / Session	62	68	-9%	65

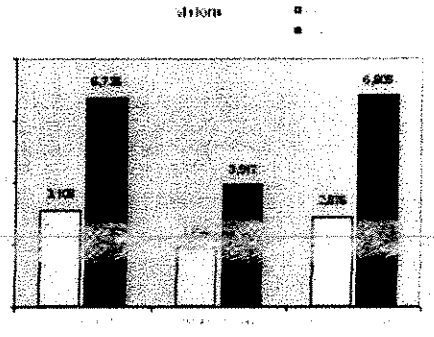


SECTION POPULARITY (page views)

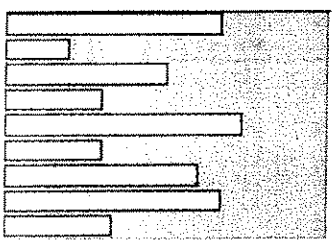








FEATURES (page views)	Jul-03
Successful Satellite Launch	2,000
International Earth Summit	600
Panoramic Mural Unveiled	1,500
Space Activity Report	900
One Day in a Thousand	2,200
Teachers Chat with Crew	900
Follow the Sun	1,800
Rock by Any Other Name	2,000
Red Ice Melting	1,000



UPCOMING FEATURES:	Month
Title of Upcoming Feature	Aug-03
Title of Upcoming Feature	Sep-03
Title of Upcoming Feature	Oct-03
Title of Upcoming Feature	Nov-03
Title of Upcoming Feature	Dec-03
Title of Upcoming Feature	Jan-04
Title of Upcoming Feature	Oct-03
Title of Upcoming Feature	Sep-03
Title of Upcoming Feature	Jan-05

Attachment Q
Syndication Expansion

The NASA Portal provides simple syndication of XML formatted content for import into the Content Management System from remote servers. Public RSS based feeds can also be imported into pre-organized index pages that include collection promotions to the links provided in the RSS feeds. The Editorial Board has expressed an interest in expanding syndication of content from the NASA Portal via the Portals own RSS public feeds. In addition, the Board has also expressed and interest in offering inbound XML content importing to other NASA web sites as an alternative to importing into the CMS. These can each be provided on an as identified basis. In addition, fully automated contract based syndication can also be accomplished using the eTouch Content Syndication Server (CSS) that is described below.

eTouch and NASA will participate in specifying requirements for each syndication project. Once the project Scope, Deliverables, Schedule and Price have been mutually agreed upon an order for the project will be executed.

The eTouch Content Syndication Server (CSS) provides a flexible and extensible framework for secure, reliable Internet-based content syndication utilizing a variety of industry standard XML-based syndication formats and distribution methods. eTouch's CSS automates the task of content exchange and distribution, driven via business processes, both on-demand or on a scheduled basis.

As an extension to eTouch Digital Asset Management (CMS), CSS is a flexible solution that enables websites to exchange rich content under pre-defined contracts or agreements. This content can simply be published on a subscriber site as is, or further processed and managed using the eTouch's CMS for archival and future reference or editing needs.

eTouch's CSS leverages the benefits of eTouch Digital Content Management (DAM) and allows e-businesses to deliver content to their own locations, their customers, or their partners. Typical users include information portals, e-marketplaces, and large-scale corporations and institutions with a major online presence. The CSS easily transcends the boundaries between intranets, extranets and the Internet, and gives content publishers and subscribers a safe, secure, manageable way to form strategic connections that share dynamic, real-time information without duplication of original content.

In its simplest sense, syndication is the delivery of content from a content publisher, or Syndicator, to a content consumer, or Subscriber. The Web makes a perfect channel for the syndication for all kinds of content, including B2B, news, headlines, or full detailed articles. The content distribution is based on a Syndicator and Subscriber relationship, where the Syndicator produces the content and delivers it to Subscribers. The Syndicator can supply the content by "pushing" it to the Subscriber based on pre-arranged rules, or the Subscriber can "pull" the content as needed. The XML based, industry standard, ICE protocol, has been implemented (other protocols are also supported) to assist in content distribution between Syndicators and Subscribers. The CSS fully supports the latest ICE (Information and Content Exchange) 1.1 specifications.

CSS's basic functions include:

- Managing content offers
- Creating delivery rules for content offers
- Providing a means for subscribers to register and subscribe to content offers
- Managing the subscription process including all delivery agreements
- Delivering content to the subscribers
- Enabling incremental updates to minimize demand on network resources
- Producing audit trails and usage logs.

The Syndication Software and Services may include:

1. Professional Services for needs/scope assessment, solution design of Syndication.
2. Professional Services for Implementation of Syndicated channels either to or from the Portal.
3. Professional Services for monitoring and operational management of Syndicated channels to/from www.nasa.gov portal, and other participating NASA sites that produce or consume syndicated content.
4. Additional Syndication Server software licenses for the www.nasa.gov infrastructure or other Syndicated content consumer/producer sites.

Software Licenses will be priced according following schedule.

Table Q-1 Software Licenses for Syndication Server

Software Licenses	
Description	**Price**
Prod Syndication Server (EE) per CPU	$ 42,500.00
Maint. Prod Syndic (EE) per CPU	$ 9,350.00
Training/Development Syndic (EE) per CPU	$ 21,250.00
Maint. Training/Development Syndic (EE) per CPU	$ 4,675.00